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Products & Services

Theme Corner

Remote LAN Access/Networking



The following listing of providers does not imply our endorsement of any of their products, services or other offerings. The listing is, rather, intended as an overview and sampling of private sector activity currently ongoing.

In This Section

.....
In addition to the 11 categories of products and services relating to telecommuting and teleworking, we also have telecommuting consultants and online resources that may be of help and interest to you.

.....
3Com is a leading provider of remote LAN access hardware and related products for mobile workers.

Acotec provides the Remote Access Manager line of software for remote network and ISP access for use by telecommuters and mobile workers.

AirDocs (tm) uses compression technology to allow file transfer and remote LAN access over wireless networks at speeds much faster than those networks traditionally allow.

AT&T's net.working (sm) line of services includes virtual private networking and other services for remote access users.

Cisco Systems offers a range of networking and access solutions for various telework applications.

Cisco Internet Mobile Office is a package of products and services for remote LAN access.

Cisco Systems is a leading provider of networking software and applications.

Comcast Business Communications offers its Broadband Commuter (tm) service for business customers with telecommuters. The service includes centralized billing to the employer and other features.

CSCI Pro-Assist Managed VPN/Firewall Services provide "secure, low cost, VPN and firewall protection solutions."

Exigent Technologies provides network integrations services for

employers that want to set up remote access via VPN or other methods.

Gandalf provides products for remote voice and data access, including PBX extenders for call center and other applications.

GemaTech's "Remote Service Manager", described as a "virtual call center," is an ACD system designed especially for remote-work applications.

GoToMyPC is a product that allows employees to "view and control their desktops from any Internet-connected computer at any time. Users simply log in to a secure Web site, select the computers they want to access and control their desktops as if they were sitting in front of them."

Hughes Network Systems has the AIReach (tm) system that provides wireless telephone access within a building, offering full PBX features from a handheld cordless phone. It can also support connections to ISDN and other high-speed networks.

iCall inc. sells iCallSignal which enables remote users to "connect a distant, normally offline computer to the Internet, exchange information, and disconnect it when finished. iCall's "unattended access" software eliminates the need for a long distance telephone connection or prearranged online availability."

Intelispan provides Virtual Private Network services suitable for mobile workers. The company says that its gateway supports any method of network access - satellite, cable, DSL, ISDN, or dialup modem.

JVC's Professional Computer Products division offers the VIPSLAN wireless networking system for flexible, mobile access to a local-area network within an office.

Mitel's "Teleworker" product line - including Mitel Shuttle, Mitel Xpress and Mitel Remote Agent - provide voice and data connectivity to head office PBX and data networks.

Mobiliti, Inc. specializes in software for remote/mobile computer users; its Network/Unplugged product creates a virtual network environment for remote users that is a mirror image of the actual network.

Motorola's "Piano" technology "provides short range, wireless connectivity at high bandwidth to a variety of mobile devices, creating spontaneous networks between these devices." Depending on how it might be implemented, it could be a useful tool for a mobile worker.

NetGear offers a cable/DSL modem firewall router suited for home use; it can accommodate up to eight users, and provides protection

against various kinds of intrusions.

Netilla Virtual Office allows a user at an off-site location to use a Web browser for secure access to shared software applications, files, and e-mail residing on office network servers.

PC Remote from American Systems allows remote users to access a computer (and anything connected to it) in the office or another site, enables remote file transfer from computer to computer, and more.

SecTec offers the TermiNET and TermiNET VPN "personal firewall" products for at-home users such as telecommuters working with always-on connections via DSL and cable modems.

Shiva Corp. is a leading provider of remote LAN access hardware and related products.

TeleWORKS (tm) software "turns any Windows PC into a 'work' server via the Web" and allows users to set up their own virtual private network for remote use by themselves or their clients.

TravelingPC provides a secure remote access solution for client/server and desktop applications.

Traveling Software's LapLink is a remote-access solution for connecting remote PCs to computers in the office or other locations.

Unwired Planet, Inc., provides "open, scalable software platforms for secure, wireless Internet/intranet access to Web-based information services and applications from mass-market handheld devices, such as mobile phones and PDAs."

**Products & Services
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.....



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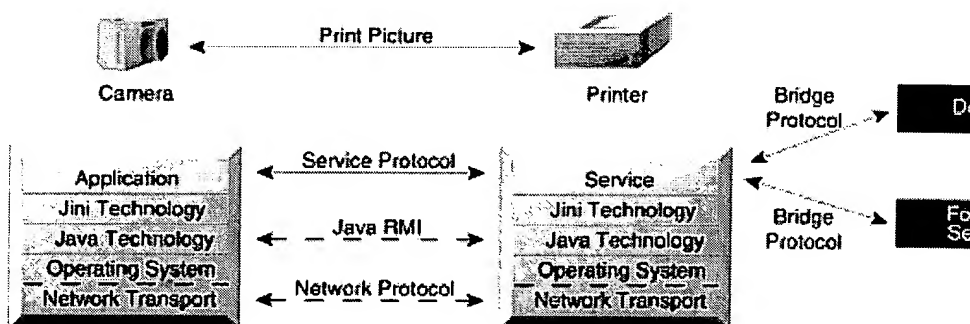
Jini Technology and Emerging Network Technologies

Also available in PostScript and PDF

In recent years, the demand for consumer and business-related electronic devices has surged. Now we face the next challenge: bringing those individual, self-contained devices together in dynamic, transparent, and simply connected networks to offer more services and more resources to the end-user. The value of such devices to the consumer increases greatly as they can interconnect and interoperate with each other.

Several technology development efforts are underway to answer this call for more interconnectivity and an easier way to build, manage, and use the services of digital networks. One of the most exciting of those developments is Jini connection technology. Built on Java technology, it is designed to enable users to simply connect any number of digital devices, and to access the valuable services provided by rich, dynamic communities of systems such as personal digital assistants (PDAs), televisions, digital cameras, fax machines, cell phones, even smart card readers.

Jini technology is just one of the components of an emerging plug-and-participate world. Other complimentary network technologies, such as Bluetooth, JetSend, and HAVi, are also in development by other companies. To understand how Jini technology will interoperate with other technologies, consider a simple example: a digital camera printing a picture. The figure below illustrates the various protocols used to do this within the Jini technology architecture.



On the left is a device that needs a service performed, in this case a camera that needs to print a picture. The center represents the device that offers the service, in this case printing. The service is typically performed locally; but sometimes, as shown to the right, the service may need to communicate with an external device, such as an older printer that does not support Java programming language, or else bridge to a service not utilizing Jini connection technology such as a database of images published to the Web.

The arrows indicate the different levels of communication that are required. First, the camera locates the printer service by using Jini technology, which employs Java Remote Method Invocation (RMI), which in turn uses whatever network protocol is supported by the operating system. Jini technology does not require any particular operating system or network transport. The camera may use infrared, radio, or be physically plugged in to the local network. Many of the

emerging network technology specifications are designed for specific types of networks such as TCP/IP for ethernet, IrDA for infrared, IEEE 1394 (Firewire), or wireless. All of these support Jini technology. Likewise all of the operating systems being proposed provide the features necessary to support RMI and therefore communications which use Jini technology.

After the camera locates the printer service, to print the picture it downloads and runs the Java programming language code supplied by the printing service. This code uses the underlying network transport, and perhaps RMI technology, to implement the printing service protocol in order to transmit the picture to the printer. The service protocol that an application and a service use to communicate with each other can either be an existing protocol or a new one defined by the company implementing the service. Some of the emerging network technologies are based on new service protocols that are more intelligent and flexible than current ones. These will all work very well with Jini connection technology.

A few of the emerging network technologies define their own protocols to locate and communicate with devices. For these, the networking service needs to act as a bridge, translating the application's request into the protocol used by the other network and forwarding it to the other network. This requires that the service is running on a device that is also connected to the other network.

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Some Examples of Complementary Emerging Technologies

Bluetooth is a technology specification for low-cost, short range radio links between PDAs, laptops, mobile phones, and other portable devices. When two Bluetooth devices come close together, they automatically detect each other and establish a network connection. This is an example of a network transport protocol that could be used to allow devices using Jini connection technology to communicate without being physically connected to each other.

Other technology like Motorola's **Piano**, which can be built on top of Bluetooth, specifies what information they exchange and how they communicate. It and other operating systems, like Symbian Ltd.'s **EPOC32** for cell phones, provide the necessary features to support Jini technology.

Hewlett Packard's **JetSend** technology is an example of a service protocol that allows devices such as printers, digital cameras, and PCs to intelligently negotiate information exchange—without user intervention. The JetSend protocol allows the devices to identify a common data format and exchange data. Once Jini technology has been used to connect the two devices, the JetSend protocol can be used to transfer information between them.

HAVi (Home Audio-Video interoperability) is a specification for home networks of consumer electronics devices such as CD players, televisions, VCRs, digital cameras, and set top boxes. The network configuration is automatically updated as devices are plugged in or removed. Applications are expected to coordinate the control of several devices and to simplify the operation of devices by the user. IEEE 1394 is used to connect devices on the HAVi network. HAVi is an example of where a bridge protocol would be required to provide a way to share services between HAVi devices and devices using Jini technology. Applications using Jini connection software gain access to HAVi devices such as VCRs. Likewise, home devices on the HAVi network, such as televisions, could connect to remote services enabled by Jini technology such as video-on-demand.

These emerging network technologies play key roles in making impromptu digital networking become a truly universal, instantly accessible, and reliable method of device interconnectivity. They ensure an open forum for development and extension of Jini connection technology. Jini connection technology is available through the **Sun Community Source Licensing program**. As more devices adopt and extend these and other communications protocols, the vision of simply connected, dynamic networks for home, office, and the world at large will become a reality.

Bluetooth is being developed by IBM Corporation, Intel Corporation, Nokia Corporation, Tel

AB L.M. Ericsson and Toshiba Corporation.

HAVi is being developed by GUNDIG A.G., Hitachi, Ltd., Matsushita Electric Industrial Co., (Panasonic), Philips Electronics N.V., Sharp Corporation, Sony Corporation, Thomson Mult S.A. and Toshiba Corporation.

JetSend is a product of Hewlett-Packard.

Java and Jini technologies are products of Sun Microsystems Inc.

Piano is being developed by Motorola Inc.

EPOC32 is a product of Symbian Ltd., a joint venture between Psion PLC, Ericsson, Nokia Motorola Inc.

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Sun lets Jini out

James Gosling, the Sun engineer credited with developing Java, has sometimes said that he first thought of the idea of a completely portable programming language while at a rock concert. Relaxing to the music, he imagined streams of electrons flowing through the air, linking up all kinds of electronic devices.

That was in the early 1990s. Since then, Java has been ported to just about every kind

of mainstream commercial computer, it has become the focal point for Sun's attempt to loosen Microsoft's grip on computing, and it has become a de facto tool for developing distributed Internet applications. But in spite of all the talk, Java has not been used in the way that Gosling originally envisaged.

In January, Sun outlined its strategy for changing all that. Backed at launch by some 37 companies, it unveiled its long awaited set of protocols and technologies known as Jini. Sun's chief executive Scott McNealy described the launch as "an inflection point" in the computer industry. Jini, he says, will encourage a move away from the current client/server model of computing to an appliance-services model, in which the now dominant PC has a limited, specialist role.

That is the grand view. Even Sun's Science Office director John Gage agrees that Jini is, in fact, little more than a set of protocols and rules to answer an obvious problem that has dogged end-users, computer engineers and consumer electronics companies for decades. Whenever new devices are introduced, or old ones changed, new software drivers must be introduced to support them. Jini simply provides an architecture for devices to introduce themselves and to hide their complexity.

Last year, hearing early details of Jini for the first time, Microsoft dismissed the whole idea as a re-invention of the kind of file and print services already available in non-Java PC environments. But Microsoft, nevertheless, rushed out the announcement of its 'Universal Plug and Play' architecture at the Las Vegas Consumer Electronics show in January. The technology, which was originally to have been announced in April, uses similar techniques, but is not Java-centric and, as might be expected, will be primarily based on Windows PCs or their derivatives.

Analysts and press that have seen Jini demonstrations have been impressed by the technology, although it does have some limitations at present. For example, it only works on local area networks, it has little in the way of built-in security, and it appears to give users the ability to take complete control of remote devices. These, however, are

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Microsoft
Windows Server System

all issues that Sun is expected to address.

In demonstrating Jini, Gage was effusive, claiming that he and his stage assistant were inventing new 'businesses' every few minutes as they went through their paces. He described how someone arriving at an airport could use a handheld computer to check-in automatically, find out the latest flight times, ask for an upgrade and check out taxis. In another example, a car using a global positioning system could be alerted to nearby shops and facilities automatically as it passes through a district.

Sun noted that when it launched Java, it had just one partner on stage - Netscape. This time, it already has backing from Sony, Canon, Xerox, Epson, Philips, IBM, Sharp, 3Com, Kodak, Symbian, Novell and Computer Associates, among others. But with Microsoft's position still unclear, and with Jini still immature, most mainstream analysts appear somewhat muted in their assessment of Jini. Within a year or two, says McNealy, the Jini logo will be "pervasive", but sceptics might point out that a similarly long list of companies backed Windows CE and other Microsoft initiatives for embedded devices, but have produced little of note other than handheld computers.

Clearly, however, a major standards battle is looming. In addition to plug and play, Microsoft has been developing a set of distributed computing technologies called Millennium. This includes Continuum, a method of distributing Windows interfaces across a network on small devices. Microsoft, however, appears at a disadvantage, not least because of Sun's aggressive marketing and willingness, after some difficulties with Java, to adopt a more open development and charging model. Crucially, Sun seems to have support from a variety of other projects heading in this direction, such as Motorola's Piano (creating ad hoc just-in-time intranets). Also, many potential partners are sceptical about using Windows at the device level, especially as the technology is some way off completion.

Jini's immediate impact on Sun's already high-flying business will be indirect. McNealy, asked about how much Sun has made from Java, says that "almost all Sun's revenues come from Java", meaning that Java does not earn much in its own right, but is boosting demand and giving Sun the edge in important deals, especially those related to the Internet. If that effect is already working for Sun, then Jini will only underline it further.

Email: alawrence@computerwire.com

What is in Jini?

In its first incarnation, at least, Jini is extremely simple. It consists of 35,000 lines of Java code and, according to Scott McNealy, was developed by just 15 programmers - less than the half the number of big companies that signed up to support it at its launch. It has, however, been in development for six years, says Jim Waldo, Jini's chief architect.

The idea of Jini is that a Jini-enabled network is able to store and distribute device information in the form of small Java programs. When a device joins a network, it lets the network know all its technical and device driving details, which are then available in an easily processed form through the network. The network distributes device information to the other devices in the "federation". Initially, Jini only works on a LAN, but its target is the Internet.

To join a Jini network, a device only needs the ability to run Java. Depending on available memory, and the various Java subsets that Sun is working on, that means devices as small as smart cards and as large as supercomputers could join the

network.

To get Jini, developers can simply go to the Sun Web site. At present, Jini 1.0 consists of three main programs: Jini control program (JCP) for controlling the network; Jini extended platform (JXP) for porting the programs to Java devices, and JSK (Jini software kit) for programmers. The software is available free to end users, but commercial developers must pay royalties to use the Jini technology and logo.

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Bluetooth

What do I know about it...

Back in time

Bluetooth got its name from
Danish king Harald II Bluetooth
who said

“... let gather!”

who also known as “Harald the

consolidator"

Back to the future

So, what is "Bluetooth"?

"Bluetooth is a low bandwidth wireless networking **technology** designed primarily to replace cables for communication between personal computing / communication devices. It is intended to be used for both voice and data communications"

Sited from official SIG cite <http://www.bluetooth.com>

Who are the parents?

Bluetooth was initiated by Ericsson, IBM, Intel, Nokia and Toshiba in early 1998.

These companies later formed a special

interest group known as the Bluetooth SIG.

List of SIG (not full)

The Bluetooth Family Tree

Bluetooth

Motorola's Piano

IrDA

IEEE 802.11

Digital Enhanced Cordless

Telecommunications (DECT)

Comparison with other technologies (http://www.bluetoothcentral.com/faq_plain.html)

Target area

Wireless home/office LANs

Wireless home LANs

Cable replacement for personal com. devices

Frequency

2.4GHz ISM

2.4GHz ISM

2.4GHz ISM

Data rate

11 Mb/s (IEEE 802.11b),

2Mb/s (IEEE 802.11)

1 Mb/s, 2Mb/s

721 Kb/s

Range

100m(330ft)

100m(330ft)

10m (33ft) for 0dBm,

100m (330ft) for 20dBm

Max. nodes

128 devices per network

128 devices per network

8 devices per piconet

Voice channels

None (optional)

6 channels

3 channels

Availability

Now

Now

Now

Cost

\$100-\$400 per node

\$100-150 per node(est.)

\$20 per node initially, \$5 per node targeted

IEEE 802.11

HomeRF/SWAP

Bluetooth

Bluetooth Wireless Solution Components

Radio unit

Baseband unit

Software stack

Application software

Bluetooth Radio

Operates within the 2.4 GHz ISM band

Power levels up to 100mw

Frequency hopping in 79 hops displaced by 1 MHz, in range 2.402-2.480 GHz.

The max hopping rate - 1600 hops/s

The nominal link range 10cm-10m

May be extended to more than 100 meters

Bluetooth Baseband

Link Controller

Link Manager

Connection Establishment

Standby mode by default, performing

scanning

Page scan (11.25 ms)

Inquiry scan

Connection states

Active

Hold

Sniff

Park

Page Scan, Page and Page Response Master

scans using a page train

switch freq.hop in every 1.28 sec

Slave

wakes up every 11.25ms

Inquiry Scan, Inquiry and Inquiry Response

Within the inquiry procedures, the only information exchange is the slave unit responding with its address information.

Following a successful inquiry scan, the master unit will enter the page scan procedures in order to

establish a connection.

Connection Modes

Active

Hold

Sniff

Park

Link and Packet Types

Synchronous Connection-Oriented

Asynchronous
Connectionless

Wireless Network Topology

Scatternet

Piconet

At least one master

One slave unit

(which all share the same frequency hopping sequence)

Bluetooth Wireless Voice Transmission

Continuous Variable Slope
Delta Modulation voice
coding scheme

Data rate of 64kb/s.

Error Correction

1/3 rate FEC

2/3 rate FEC

Automatic repeat request (ARQ).

Bluetooth Security

Non-secure

Service-level security

Link level security

Bluetooth Link Management

Transmitting and receiving data

Requesting a remote device name

Inquiring for a remote device link address (inquiry scan procedure)

Negotiating and setting up the connection and link mode (ACL and/or SCO links)

Authentication

Determining the frame type on a packet-by-packet basis

Setting a device in one of the three low power modes (hold, sniff, and park)

Ensuring the master only starts transmission in specified, regularly spaced time slots

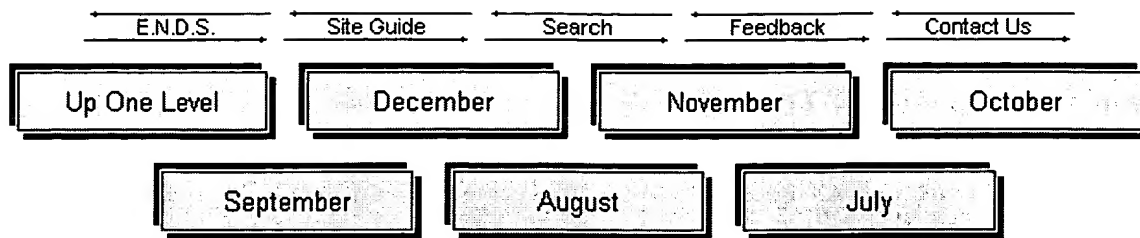
Bluetooth Application Software

The primary goal of the Bluetooth profile requirements is to ensure that any device displaying the Bluetooth logo will interoperate with other

Bluetooth devices

Conference

Bluetooth Developer Conference



Motorola DigitalDNA Lab aims to get smart appliances to network.

August 3, 1999

Picture yourself struggling home with a huge bag of groceries. You reach the front door, put down the bag, and fumble for your keys. Now, rather than going through this routine time and again, **imagine if the front door recognized your face and voice and simply opened itself?** This is just one of the convenient household features that researchers promise will be available to the consumer of the future.

To getting the ball rolling, Motorola has partnered with the MIT Media Lab to create the Motorola DigitalDNA Laboratory. Motorola has donated \$5 million towards building and equipping the 5,000-square-foot facility that will house the lab. Research is already in progress, but the new building won't be completed until 2003. The lab will focus on making smart appliances--those that understand what you want and do it--able to communicate among themselves.

The result: a networked household that seamlessly connects all sorts of appliances. Your washing machine and air conditioner will detect if they're using too much energy or making too much noise. Clothes will have labels that inform your washer and dryer what cycle to use. Doors will open for specific people or pets. Thermostats will respond to voice commands. Treadmills will check for your pulse and adjust the incline accordingly.

ENTER THE NETWORK

"Products are getting smarter, but there's a limit to what they can do for people if they're just working by themselves," says Greg Nelson, corporate vice president of Motorola's Semiconductor Products Sector. "Once you provide networks or linkages for these products, they can begin to do so much more in terms of making our lives easier," he says. **One example of Motorola's current research is a wireless technology known as Piano, which can transmit information at speeds of up to 500 megabits per second over a distance of 10 feet.** "It's very localized, basically the opposite of satellite networks. **You walk into a room and the network is created as you enter,**" Nelson says.

MIT and Motorola are the most recent players to enter an already crowded field. The development of a standard way for appliances to communicate is already well underway. Sun Microsystems has recruited substantial support for its Java-based JINI technology from manufacturers of cellular phones, printers, hand-held computers. Meanwhile, Microsoft is promoting its Universal Plug and Play technology as a common language for digital devices.

[E.N.D.S.] [Up One Level]

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Search Report from Ginger R. DeMille

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(c) 2003, EBSCO Pub.
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? dst3/3,k/all

| Set | Items | Description |
|-----|-------|--|
| S1 | 196 | PIANO(S)MOTOROLA |
| S2 | 112 | S1(S) (BANDWIDTH? OR BLUETOOTH? OR CELLULAR? OR WIRELESS? OR PAGER? OR ELECTRONIC?) |
| S3 | 84 | RD (unique items) |
| ? | | |

3/3,K/1 (Item 1 from file: 9)
DIALOG(R)File 9:Business & Industry(R)
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2440500 Supplier Number: 02440500
New Tunes for Wireless Data

(Motorola launched Piano , an enabling platform that will allow devices in close proximity to become aware of and wirelessly collaborate)

Wireless Review, v 16, n 5, p 9

March 01, 1999

DOCUMENT TYPE: Journal ISSN: 0741-6520 (United States)

LANGUAGE: English RECORD TYPE: Abstract

(Motorola launched Piano , an enabling platform that will allow devices in close proximity to become aware of and wirelessly collaborate)

ABSTRACT:

Motorola is completing its development of **Piano** , an enabling platform that will let devices close to each other be aware of and **wirelessly** network with one another. It will be incorporated into Sun Microsystems' Jini to allow any Jini-enabled devices to become a "service" on any network. **Bluetooth** , which was co-developed by Toshiba, Nokia, Ericsson, IBM and Intel, is the worldwide standard for **wireless** connectivity that lets portable instruments communicate without using cable. The **Bluetooth** SIG already embraced **Piano** as a new service-discovery protocol. **Motorola** will come up with the first radios for short-range networks where **Piano** will be used.

...

3/3,K/2 (Item 2 from file: 9)

DIALOG(R)File 9:Business & Industry(R)

(c) 2003 Resp. DB Svcs. All rts. reserv.

2421958 Supplier Number: 02421958 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Motorola launches 'Piano' Web site

(Motorola Internet & Networking Group launches Motorola Piano Platform Web site, which offers short-range, wireless connectivity at high bandwidth to multiple mobile devices)

Electronic Engineering Times, p 44

April 05, 1999

DOCUMENT TYPE: Journal ISSN: 0192-1541 (United States)

LANGUAGE: English RECORD TYPE: Fulltext

WORD COUNT: 96

(USE FORMAT 7 OR 9 FOR FULLTEXT)

(Motorola Internet & Networking Group launches Motorola Piano Platform Web site, which offers short-range, wireless connectivity at high bandwidth to multiple mobile devices)

TEXT:

Scottsdale, Ariz. - **Motorola** Internet and Networking Group has just unveiled the **Motorola Piano** Platform Web site. The **Motorola Piano** Platform provides short-range, **wireless** connectivity at high **bandwidth** to a variety of mobile devices, creating spontaneous networks among them. **Piano** provides a common extensible platform for thousands of professional and consumer applications, **Motorola** said.

Just as the Internet has unlocked the potential in a fragmented collection of computers...

3/3,K/3 (Item 3 from file: 9)

DIALOG(R)File 9:Business & Industry(R)

(c) 2003 Resp. DB Svcs. All rts. reserv.

2371078 Supplier Number: 02371078 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Moto tunes 'Piano' network in post-PC play

(Motorola Inc is prepared to launch a 60-GHz broadband wireless connection, code-named Piano , to tie together pagers , PDAs and PalmPilot-type devices)

Electronic Engineering Times, p 4

February 08, 1999

DOCUMENT TYPE: Journal ISSN: 0192-1541 (United States)

LANGUAGE: English RECORD TYPE: Fulltext

WORD COUNT: 991

(USE FORMAT 7 OR 9 FOR FULLTEXT)

(Motorola Inc is prepared to launch a 60-GHz broadband wireless connection, code-named Piano , to tie together pagers , PDAs and PalmPilot-type devices)

ABSTRACT:

Motorola Inc is prepared to launch a 60-GHz broadband **wireless** connection, code-named **Piano** , to tie together **paggers** , PDAs and PalmPilot-type devices. The launch is expected sometime in 1999. Semiconductors that implement...
...more than \$10 to the cost of original equipment makers' info-appliance material costs. While **Motorola** has been developing **Piano** for some time, the company is now taking advantage of the launch of Sun Microsystems' Jini, a Java-based distributed-computing technology. **Piano** 's primary advantage is that it will not require a Java Virtual Machine to be installed on the information appliance. **Piano** does not require Java or Jini. The first **Piano** chips will support 2.4 GHz and provide a 5- to 10-meter range. **Motorola** plans to ramp up the technology into the 5-GHz region, ultimately offering parts in...

TEXT:

...appliances automatically attach themselves to a network on which they can communicate and share services.)

Motorola 's timely tie-in with Sun may give **Piano** a real-world edge over a panoply of untried broadband technologies being formulated by several **wireless** standards groups, such as the IEEE 802.11 **wireless** -LAN working group (see Jan 18, page 1).

"This is in essence our Jini, but...

...so you don't even need a JVM," Leeper said.

In technical terms, the first **Piano** chips, due later this year, will support a frequency of 2.4 GHz and provide a 5- to 10-meter range. However, since higher frequencies by definition support broader **bandwidths** , **Motorola** intends to ramp the technology up into the 5-GHz region quickly.

Ultimately, **Motorola** will field parts in the 59-GHz to 60-GHz band, which is the millimeter...

...radar and communications systems. Leeper said that "60 GHz is made to order because of **bandwidth** considerations. This is unlicensed territory, so an FCC license would not be required to operate a **Piano** network."

For its part, Motorola appears poised to jump into Piano not only on the...

...be that Bluetooth would require a Java socket, while Piano takes a proxy approach.

Interestingly, **Motorola** has been working to get **Piano** added into the

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Bluetooth spec. The overall spec should be ready in the second half, sources said.

For Sun...

3/3,K/4 (Item 4 from file: 9)

DIALOG(R)File 9:Business & Industry(R)

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2365643 Supplier Number: 02365643 (USE FORMAT 7 OR 9 FOR FULLTEXT)

MOTOROLA, SUN PARTNER ON WIRELESS DATA NETWORKING

(Motorola and Sun Microsystems to jointly incorporate Sun's Jini technology into Motorola's networking software platform code-named Piano)

RCR Radio Communications Report, p 24

February 01, 1999

DOCUMENT TYPE: Journal ISSN: 0744-0618 (United States)

LANGUAGE: English RECORD TYPE: Fulltext

WORD COUNT: 173

(USE FORMAT 7 OR 9 FOR FULLTEXT)

TEXT:

...a Motorola networking software project code-named Piano.

Currently in the research and development stage, **Piano** involves technology that would enable most **electronic** devices to be aware of other nearby **electronic** devices and be capable of **wirelessly** networking with them, according to **Motorola**. When these **Piano**-enabled devices come into physical proximity with one another, they automatically detect each other's ...

...use of small Jini-equipped gateways that would connect with the Internet or local intranets.

Motorola has been concentrating with **Piano** on using the **Bluetooth** Special Interest Group plans for **wireless** data communications, said **Motorola**.

3/3,K/5 (Item 1 from file: 15)

DIALOG(R)File 15:ABI/Inform(R)

(c) 2003 ProQuest Info&Learning. All rts. reserv.

01850566 05-01558

Smile. Bluetooth is here.

Piven, Joshua

Computer Technology Review v19n6 PP: 1, 24+ Jun 1999

ISSN: 0278-9647 JRNL CODE: CTN

WORD COUNT: 1498

...TEXT: mode" which allows synchronized devices to enter powersaving modes when there is reduced activity.

The **Bluetooth** SIG has approved member company **Motorola**'s new "**Piano**" service discovery architecture for version 1.0 of the spec. **Piano** supports a device proximity of about 5 meters (15 feet), which means that separate piconets...

... without interference, as long as the ad hoc networks are physically separate from one another. **Piano** provides device discovery, service

Search Report from Ginger R. DeMille

discovery, service organization, and asynchronous notification-for an application looking for... ever there was a technology that could succeed despite a lack of support from Redmond, **Bluetooth** fits the bill: it was designed from the ground up as silicon-based, OS independent interface. (Along with **Motorola** 's **Piano** architecture, Intel has been handling driver development.)

With six hundred-plus industry supporters behind Bluetooth...

3/3,K/6 (Item 2 from file: 15)

DIALOG(R)File 15:ABI/Inform(R)

(c) 2003 ProQuest Info&Learning. All rts. reserv.

01799973 04-50964

New tunes for wireless data

Martinek, Marcia

Wireless Review vl6n5 PP: 9 Mar 1, 1999

ISSN: 1097-3893 JRNL CODE: WLR

WORD COUNT: 527

ABSTRACT: **Motorola** 's **Piano** is an enabling platform that will allow devices in close proximity to become aware of and **wirelessly** network with one another. Its potential for combination with Sun Microsystem's Jini and **Bluetooth** , founded last year by Ericsson, IBM, Intel, Nokia and Toshiba, is discussed.

TEXT: **Motorola** has a new **Piano** , and its potential for 3-part harmony with Sun's Jini and **Bluetooth** may have **wireless** data enthusiasts singing along.

Piano, in development for several years, is an enabling platform that...

... come in radio proximity. We do extend the capability of Jini in that sense."

The **Bluetooth** SIG already has adopted the **Piano** technology as a new service-discovery protocol, and a **Motorola** architect is adapting **Piano** to the required specification, Brogstahl said.

"Think of a communications stack," he said. "Bluetooth provides...

... network; Gini provides the services," he said. Each has its own capabilities within the stack.

Motorola went to the **Bluetooth** SIG because of the group's momentum and because it will be developing the first radios available for the short-range networks where **Piano** will operate. **Bluetooth** radios initially will operate at 2.45GHz with a range of 30 feet.

But when...

3/3,K/7 (Item 1 from file: 16)

DIALOG(R)File 16:Gale Group PROMT(R)

(c) 2003 The Gale Group. All rts. reserv.

06283066 Supplier Number: 54428128 (USE FORMAT 7 FOR FULLTEXT)

High-IQ Homes. (Motorola DigitalDNA Lab, MIT Media Lab build new research facility) (Company Business and Marketing)

PC Magazine, p28(1)

May 25, 1999

Search Report from Ginger R. DeMille

Language: English Record Type: Fulltext
Document Type: Magazine/Journal; General Trade
Word Count: 400

... people if they're just working by themselves," says Greg Nelson, corporate vice president of **Motorola** 's Semiconductor Products Sector. "Once you provide networks or linkages for these products, they can...

...so much more in terms of making our lives easier," he says. One example of **Motorola** 's current research is a **wireless** technology known as **Piano**, which can transmit information at speeds of up to 500 megabits per second over a...

3/3,K/8 (Item 2 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2003 The Gale Group. All rts. reserv.

06120299 Supplier Number: 53735929 (USE FORMAT 7 FOR FULLTEXT)
Moto tunes ' Piano ' network in post-PC play.(Motorola 's Piano broadband wireless connection to tie together pagers , PDAs and PalmPilot-type devices) (Company Business and Marketing)

Wolfe, Alexander

Electronic Engineering Times, p4(1)

Feb 8, 1999

Language: English Record Type: Fulltext

Document Type: Magazine/Journal; Trade

Word Count: 971

Moto tunes ' Piano ' network in post-PC play.(Motorola 's Piano broadband wireless connection to tie together pagers , PDAs and PalmPilot-type devices) (Company Business and Marketing)

... appliances automatically attach themselves to a network on which they can communicate and share services.)

Motorola 's timely tie-in with Sun may give **Piano** a real-world edge over a panoply of untried broadband technologies being formulated by several **wireless** standards groups, such as the IEEE 802.11 **wireless** -LAN working group (see Jan 18, page 1).

"This is in essence our Jini, but...

...so you don't even need a JVM," Leeper said.

In technical terms, the first **Piano** chips, due later this year, will support a frequency of 2.4 GHz and provide a 5- to 10-meter range. However, since higher frequencies by definition support broader **bandwidths**, **Motorola** intends to ramp the technology up into the 5-GHz region quickly.

Ultimately, **Motorola** will field parts in the 59-GHz to 60-GHz band, which is the millimeter...

...radar and communications systems. Leeper said that "60 GHz is made to order because of **bandwidth** considerations. This is unlicensed territory, so an FCC license would not be required to operate a **Piano** network."

For its part, **Motorola** appears poised to jump into **Piano** not only on the...

...be that Bluetooth would require a Java socket, while **Piano** takes a proxy approach.

Interestingly, **Motorola** has been working to get **Piano** added into the **Bluetooth** spec. The overall spec should be ready in the second half, sources said.

For Sun...

3/3,K/9 (Item 3 from file: 16)

DIALOG(R)File 16:Gale Group PROMT(R)
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06116019 Supplier Number: 53718930 (USE FORMAT 7 FOR FULLTEXT)
Motorola to Launch 60-GHz Broadband Wireless Connection, Reports EE Times.
Business Wire, p1355
Feb 5, 1999
Language: English Record Type: Fulltext
Document Type: Newswire; Trade
Word Count: 374

Would Enable Information-Appliance Networks

Motorola Corp. (NYSE: MOT) is poised to launch a broadband **wireless** connection, starting out at 2.4 GHz and ultimately covering up to 60 GHz, that...

...to exclusive reporting in the February 8 issue of CMP Media's EE Times. The **Motorola** effort, code-named "**Piano**," is intended to put some semiconductor muscle behind recent announcements touting networks of new-age information appliances such as **paggers**, PDAs and Palm Pilot-type devices.

The semiconductors which implement the radio-frequency technology will...

3/3,K/10 (Item 4 from file: 16)

DIALOG(R)File 16:Gale Group PROMT(R)
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06097658 Supplier Number: 53654340 (USE FORMAT 7 FOR FULLTEXT)
SUN'S VARIED JINI PARTNERS OUTLINE THEIR PLANS.
Computergram International, pNA
Jan 27, 1999
Language: English Record Type: Fulltext
Document Type: Newswire; Trade
Word Count: 470

(USE FORMAT 7 FOR FULLTEXT)

TEXT:

...cameras that could automatically transmit pictures from the camera to the nearest photo developer bureau. **Wireless** PDA and handheld device companies including Sharp Corp, 3Com Corp and Symbian Ltd were also in evidence, while **Motorola** Inc revealed plans to combine Jini with **Piano**, its own networking software research and development project. **Piano** is designed to get suitably-enabled mobile devices to automatically detect each other's presence, creating a temporary **wireless** network, or "just-in-time intranet." Back towards the computer side of things, disk drive...

3/3,K/11 (Item 5 from file: 16)

DIALOG(R)File 16:Gale Group PROMT(R)
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06093425 Supplier Number: 53637881 (USE FORMAT 7 FOR FULLTEXT)
Motorola and SUN Partner on 'Piano' and Jini(TM) Technologies.
PR Newswire, p0860

Search Report from Ginger R. DeMille

Jan 25, 1999

Language: English Record Type: Fulltext

Document Type: Newswire; Trade

Word Count: 571

In **Piano**, **Motorola** envisions a future in which most **electronic** devices are aware of other nearby **electronic** devices and are capable of **wirelessly** networking with them. When these **Piano**-enabled devices come into physical proximity with one another, they automatically detect each other's...

...to determine whether further communication between the devices is warranted. If it is, a temporary **wireless** network -- a "just-in-time intranet" -- is established so that either device can use the...

...a wide variety of hardware and software, designed to dramatically simplify interaction with networks.

Using **Piano** and Jini technology, people with **Piano**-enabled devices such as PDAs, cell phones, **paggers**, and other mobile devices, can create a dynamic and untethered personal networking space in the...

...about with him or her, it interacts with similarly enabled spaces surrounding other people or **electronic** devices. Among these devices, Sun and **Motorola** envision small Jini-equipped "pods" or gateways into local intranets or the Internet itself. From these pods, the services of a Jini-enabled world then become accessible.

While the **Piano** software technology can work with virtually any radio or infrared technology, **Motorola** has focused to date on the **Bluetooth** Special Interest Group(SIG) plans for low-cost, short-range, **wireless** data communication. **Motorola** is working within the SIG to add the **Piano** 'service discovery' architecture to the **Bluetooth** specification. **Motorola** also plans to make the **Piano** software widely available to software and application developers as an open specification.

"Jini connective technology...

3/3,K/12 (Item 6 from file: 16)

DIALOG(R)File 16:Gale Group PROMT(R)

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06079403 Supplier Number: 53582530 (USE FORMAT 7 FOR FULLTEXT)

Crystal ball reveals lots of activity on the communications front. (Industry Trend or Event) (Editorial)

McCormick, John

Government Computer News, v18, n1, p29(1)

Jan 11, 1999

Language: English Record Type: Fulltext

Article Type: Editorial

Document Type: Magazine/Journal; Tabloid; Trade

Word Count: 508

... Of course, it's dangerous to read your email while you're crossing the street.

Piano, as **Motorola** terms the new linkage, looks promising for ships and other closed environments that need fast, wide- **bandwidth**, two-way communications. At long last, Dick Tracy's wrist TV could finally become reality.

3/3,K/13 (Item 1 from file: 20)

Search Report from Ginger R. DeMille

DIALOG(R)File 20:Dialog Global Reporter
(c) 2003 The Dialog Corp. All rts. reserv.

25299858 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Board of Directors Implements Appointment of Thomas A. Dolan as President/CEO of QRS Music Technologies, Inc.

BUSINESS WIRE

October 03, 2002

JOURNAL CODE: WBWE LANGUAGE: English RECORD TYPE: FULLTEXT

WORD COUNT: 426

... Irving, Texas. He started with Johnson Controls in 1988. Before joining Johnson Controls he left **Motorola** 's Component Products Division, Franklin Park, Illinois, to earn an Electrical Engineering degree from the University of Arizona. He joined **Motorola** in 1981 in Production Management and later in the Inventory Control and Purchasing Department. He ...

... from the Iowa State University in 1981. The QRS Pianomation(R) system can turn any **piano** into a reproducing player **piano** . A hardware and software process can store and transport Musical Instrument Digital Interface ("MIDI") information as an analog signal. This process gives QRS the ability to store, and **wirelessly** transmit, MIDI performance data in an analog format from a controller (CD, video, cassette, DVD, DAT or Minidisc) to the receiver on the **piano** . This creates numerous possibilities. For example, most off-the-shelf audio equipment has a left ...

3/3,K/14 (Item 2 from file: 20)

DIALOG(R)File 20:Dialog Global Reporter
(c) 2003 The Dialog Corp. All rts. reserv.

06557662 (USE FORMAT 7 OR 9 FOR FULLTEXT)

PRNewswire Midwest Summary Thursday, August 5 to 4 P.M. EST

PR NEWSWIRE

August 05, 1999

JOURNAL CODE: WPRW LANGUAGE: English RECORD TYPE: FULLTEXT

WORD COUNT: 1317

...Far East LATH028 08/05/1999 08:03 r f bc-IL-MOT-Buyout (SCHAUMBURG) **Motorola** and Texas Pacific Group Finalize Management Buyout of Semiconductor Components Unit of **Motorola** 's Semiconductor Products Sector CGTH003 08/05/1999 08:04 r n bc-IL-Wrigley...

...08/05/1999 10:20 r w bc-DC-CPSC-Tiger-Recall (WASHINGTON) CPSC, Tiger **Electronics** , Ltd. Announce Recall to Replace 'Pooh Poppin' **Piano** ' Toys NYTH060 08/05/1999 10:21 r f bc-IL-DCR-Scott-Tech-rtg...

...CGTH041 08/05/1999 10:35 r f bc-IL-Methode-new-VP (CHICAGO) Methode **Electronics** , Inc. Announces Promotion of Robert A. Miller as Vice President, Quality Assurance NYTH064 08/05...

3/3,K/15 (Item 3 from file: 20)

DIALOG(R)File 20:Dialog Global Reporter
(c) 2003 The Dialog Corp. All rts. reserv.

06109867 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Sherril McCahon online

Search Report from Ginger R. DeMille

BUSINESS TELEGRAPH

July 06, 1999

JOURNAL CODE: WBST LANGUAGE: English RECORD TYPE: FULLTEXT

WORD COUNT: 768

(USE FORMAT 7 OR 9 FOR FULLTEXT)

... people if they're just working by themselves," says Greg Nelson, corporate vice president of **Motorola** 's Semiconductor Products Sector. "Once you can provide networks or linkages for those products, they...

... so much more in terms of making our lives easier," he says. One example of **Motorola** 's current research is a **wireless** technology known as **Piano**, which can transmit information at speeds of up to 500 megabits per second over a...

3/3,K/16 (Item 4 from file: 20)

DIALOG(R)File 20:Dialog Global Reporter

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05227833 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Arizona Telecommunications & Information Council Upcoming Calendar of Events

PR NEWSWIRE

May 07, 1999

JOURNAL CODE: WPRW LANGUAGE: English RECORD TYPE: FULLTEXT

WORD COUNT: 1229

(USE FORMAT 7 OR 9 FOR FULLTEXT)

... 1999 - ATIC Council/Public Meeting 1:30-4:00 PM (Phoenix/Tucson)

Panel on Advanced **Wireless** Technologies and their Impact on Arizona: Unique opportunity to discover the range of **wireless** services and applications coming your way! **Wireless** Enterprise Local Area Network Applications - Bill Austin, **Motorola** **PIANO** Project Third Generation (3G) **Cellular** and PCS Services - Reed Pangborn, AT&T **Wireless** **Wireless** Mobile Internet/Data Access - Jim Walz, Project Manager, Metricom Inc. **Wireless** Local Loop (Fixed **Wireless** Access) - Mike Hazel, Director of Networking, Mountain Telecommunications Inc. Broadband Point-to-Point **Wireless** Networks - Larry Anthony, Regional VP for Sales, WinStar Telecommunications **Wireless** Cable Television and Internet (MMDS) - Steve Rowley, General Manager AZ, People's ChoiceTV/SpeedChoice Satellite...

3/3,K/17 (Item 1 from file: 63)

DIALOG(R)File 63:Transport Res(TRIS)

(c) fmt only 2003 Dialog Corp. All rts. reserv.

00779141 DA

TITLE: CASTING A WIDER NET

AUTHOR(S): PROFFER, W

CORPORATE SOURCE: UK & INTERNATIONAL PRESS, ABINGER HOUSE, CHURCH STREET, DORKING, SURREY, RH4 1DF, UNITED KINGDOM

JOURNAL: TRAFFIC TECHNOLOGY INTERNATIONAL Page: 37-40

PUBLICATION DATE: 19990000 **PUBLICATION YEAR:** 1999

LANGUAGE: English **SUBFILE:** IRRD (I)

IRRD DOCUMENT NUMBER: E102420

ISSN: 1356-9252

REFERENCES: 3

Search Report from Ginger R. DeMille

DATA SOURCE: Transport Research Laboratory (TRL)

ABSTRACT: This article describes the open technical specification, **Bluetooth**, which will provide Internet access and local area communications for cars. **Bluetooth** will enable almost any **electronic** device to communicate by radio with another device. It is a short-range two-direction **wireless** link for voice and data, which will provide high radio connectivity between vehicles and between...

...to a particular driver's needs are now being addressed by existing and advanced new **cellular** systems, and customised traffic information based on user profiles. **Bluetooth** uses eight technical facilities to provide reasonable data rates, even in the presence of severe radio interference. It is due to be launched in the USA in late 1999.

Motorola has proposed its **Piano** additions to the **Bluetooth** specifications, to allow for 'spontaneous proximity networking'. The article also presents three interesting application scenarios...

3/3,K/18 (Item 1 from file: 148)

DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2003 The Gale Group. All rts. reserv.

07281009 SUPPLIER NUMBER: 15435197 (USE FORMAT 7 OR 9 FOR FULL TEXT)

Peavey takes Motorola technical award.

Music Trades, v142, n4, p20(1)

May, 1994

ISSN: 0027-4488

LANGUAGE: ENGLISH

RECORD TYPE: FULLTEXT

WORD COUNT: 319

LINE COUNT: 00026

TEXT:

Besting products from General Motors, Apple Computer, and IBM, the Peavey **Electronic** Millennium Digital **Piano** received **Motorola**'s Technical Excellence and Innovation Award at the annual "Powered By **Motorola**" ceremony. Each year **Motorola**, one of the world's leading microprocessor manufacturers, reviews thousands of products based on **Motorola** chips and selects a handful that exhibit exceptional innovation. These products, which this year included an Apple Computer, the Peavey Millennium **Piano**, and several General Motors autos, were showcased in a multi-million dollar "Powered By **Motorola**" ad campaign.

3/3,K/19 (Item 2 from file: 148)

DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2003 The Gale Group. All rts. reserv.

06675136 SUPPLIER NUMBER: 14088552 (USE FORMAT 7 OR 9 FOR FULL TEXT)

Contractors. (17th Annual Design/Construct 300 Survey) (Directory)

Building Design & Construction, v34, n7, p51(6)

July, 1993

DOCUMENT TYPE: Directory

ISSN: 0007-3407

LANGUAGE: ENGLISH

RECORD TYPE: FULLTEXT; ABSTRACT

WORD COUNT: 5301

LINE COUNT: 00453

... Dallas, TX 75221

(214) 443-5700

Current projects include the 1.6 million-sq.-ft. **Electronic** Data Systems headquarters in **Piano**, Texas, the 1 million-sq.-ft. Dallas Federal Reserve Bank headquarters, a 170,000-sq.-ft. expansion at **Motorola**'s Austin, Texas, facility, a \$12 million AMRIS/American Airlines

reservation center in San Antonio...

3/3,K/20 (Item 1 from file: 160)

DIALOG(R)File 160:Gale Group PROMT(R)

(c) 1999 The Gale Group. All rts. reserv.

01998343

McDonald & Co. Investment Analyst Report on Weekly Stock Update.

CIRR February 5, 1988 p. 1

... Weekly Market Comment (I-1); Recommendation List (II-1); Research Updates: AMP, Inc. (III-1), **Motorola**, Inc., & The Timken Co. (III-2), ESSEF Corp. (III-3), Heavy-Duty Truck Update (III...

... Corp., National City Corp., & Ohio Edison (IV-1), Ohio Mattress, Alltell, & Ameritrust (IV-2), Baldwin **Piano** & Organ, E-Systems, & Exxon (IV-3), Oil Industry, & Sherwin Williams (IV-4), Zenith **Electronics**, ACME- Cleveland, & Autodie (IV-5), Centerior Energy, First Union Real Estate, & Oil Industry (IV-6...

3/3,K/21 (Item 1 from file: 180)

DIALOG(R)File 180:Federal Register

(c) 2003 format only The DIALOG Corp. All rts. reserv.

DIALOG Accession Number: 02337118

Supplier Number: 941202729

Rulemaking for EDGAR System

Volume: 59 Issue: 250 Page: 67752

CITATION NUMBER: 59 FR 67752

Date: FRIDAY, DECEMBER 30, 1994

TEXT:

... 02 836243 ALCOA INTERNATIONAL HOLDINGS CO CF-01 003392 ALD INC CF-08 003398 ALDEN **ELECTRONICS** INC CF-06 003449 ALEXANDER & ALEXANDER SERVICES INC CF-03 003453 ALEXANDER & BALDWIN INC CF...ALERT CORP CF-08 869625 AMERICAN MEDICAL ASSESSMENT PROGRAMS INC CF-10 715247 AMERICAN MEDICAL **ELECTRONICS** INC CF-07 861439 AMERICAN MEDICAL HOLDINGS INC CF-02 312655 AMERICAN MEDICAL INTERNATIONAL INC...07 842923 ANDOVER EQUITIES CORP CF-09 793029 ANDOVER TOGS INC CF-05 006494 ANDREA **ELECTRONICS** CORP CF-07 317093 ANDREW CORP CF-04 277025 ANDREWS GROUP INC /DE/ CF-05...

...04 065695 ANR PIPELINE CO CF-02 826326 ANTENNAS AMERICA INC CF-09 727120 ANTHEM **ELECTRONICS** INC /DE/ CF-05 006720 ANTHONY INDUSTRIES INC CF-04 315293 AON CORP CF-02... RESEARCH TECHNOLOGY INC /DE/ CF-08 007533 ARROW AUTOMOTIVE INDUSTRIES INC CF-05 007536 ARROW **ELECTRONICS** INC CF-03 717538 ARROW FINANCIAL CORP CF-08 886046 ARROW INTERNATIONAL INC CF-10...
... 07 826253 AURA SYSTEMS INC CF-06 008497 AURIC METALS CORP CF-08 319237 AURORA **ELECTRONICS** INC CF-05 725518 AURORA ENVIRONMENTAL INC CF-07 741012 AURTEX INC CF-08 877406...04 009342 BALDOR ELECTRIC CO CF-04 009346 BALDWIN & LYONS INC CF-10 797315 BALDWIN **PIANO** & ORGAN CO /DE CF-04 805792 BALDWIN TECHNOLOGY CO INC CF-04 009389 BALL CORP...886158 BED BATH & BEYOND INC CF-10 772263 BEEBAS CREATIONS INC CF-05 851478 BEI **ELECTRONICS** INC CF-05 225569 BEI HOLDINGS LTD /DE/ CF-05 729580 BEL FUSE INC /NJ...

... 768384 BEN & JERRYS HOMEMADE INC CF-06 804563 BENCHMARK BANKSHARES INC CF-09 863436 BENCHMARK **ELECTRONICS** INC CF-10 008960 BENEFICIAL CORP CF-02 861628 BENEFUND INC CF-10 715384 BENIHANA...CF-10 734394 BOOLE & BABBAGE INC CF-05 891552 BOOMTOWN INC CF-10 013191 BOONTON **ELECTRONICS** CORP CF-06 312340 BORDEAUX PETROLEUM CO CF-09 821202 BORDEN CHEMICALS & PLASTICS

Search Report from Ginger R. DeMille

LIMITED PART...INC CF-04 885800 C A C O SERVICES INC CF-10 350621 C COR
ELECTRONICS INC CF-06 844008 C SQUARE VENTURES INC CF-09 310433 C TEC
CORP CF... BIOSCIENCES INC CF-07 878377 CELLPRO INCORPORATED CF-10 740664
CELLTRONICS INC CF-07 870764 **CELLULAR** COMMUNICATIONS INC /DE CF-10 870762
CELLULAR COMMUNICATIONS INTERNATIONAL INC CF-10 881817 **CELLULAR**
COMMUNICATIONS OF PUERTO RICO INC CF-10 718585 **CELLULAR** PRODUCTS INC
CF-08 876378 **CELLULAR** TECHNICAL SERVICES CO INC CF-10 862885 **CELLULAR**
TELEPHONE ENTERPRISES INC CF-10 883720 CELOX CORPORATION CF-10 869497
CELTIC INVESTMENT INC CF...

... CF-10 877834 CENIT BANCORP INC CF-10 702430 CENTENNIAL BANCORP CF-06
879573 CENTENNIAL **CELLULAR** CORP CF-10 810909 CENTENNIAL GROUP INC /DE/
CF-04 736980 CENTENNIAL MORTGAGE INCOME FUND...NET LEASE REALTY INC CF-06
022460 COMMERCIAL PROGRAMMING UNLIMITED INC CF-06 787912 COMMNET **CELLULAR**
INC CF-05 702655 COMMODITY TREND TIMING FUND II CF-06 ...CONSUMERS WATER
CO CF-04 798916 CONTAINER CORP OF AMERICA /DE/ CF-02 822419 CONTEL
CELLULAR INC CF-04 024186 CONTEL OF CALIFORNIA INC CF-03 319687
CONTINENTAL AIRLINES INC /DE... CF-03 783284 DCX INC CF-07 109657 DDI
PHARMACEUTICALS INC CF-07 026987 DDL **ELECTRONICS** INC CF-05 027466 DE ANZA
PROPERTIES IX CF-09 215628 DE ANZA PROPERTIES X...

... 05 111001 DEKALB ENERGY CO CF-04 835015 DEKALB GENETICS CORP CF-04
027748 DEL **ELECTRONICS** CORP CF-06 027751 DEL LABORATORIES INC CF-05
866872 DEL MONTE CORP /NY/ CF...

... 837330 DEVON ENERGY CORP /DE/ CF-05 040542 DEVON GROUP INC CF-05 028561
DEWEY **ELECTRONICS** CORP CF-07 888138 DEWOLFE COMPANIES INC CF-10 028582
DEXTER CORP CF-03 885537...

... 028742 DIAPULSE CORP OF AMERICA CF-08 028755 DIBRELL BROTHERS INC CF-03
727010 DICEON **ELECTRONICS** INC CF-05 028823 DIEBOLD INC CF-03 854775 DIGI
INTERNATIONAL INC CF-06 ...07 738194 EDUDATA CORP CF-08 718482 EDWARDS A G
INC CF-02 785970 EFI **ELECTRONICS** CORP CF-07 031791 EG&G INC CF-03 832320
EGGHEAD INC /WA/ CF-04 031862 EICO **ELECTRONIC** INSTRUMENT CO INC CF-08
858365 EIGHT HOLDINGS INC CF-10 026782 EIP MICROWAVE INC SYSTEMS INC CF-08
032198 ELECTROMAGNETIC SCIENCES INC CF-04 712515 **ELECTRONIC** ARTS INC
CF-05 313096 **ELECTRONIC** ASSOCIATES INC CF-06 721773 **ELECTRONIC** CLEARING
HOUSE INC CF-07 863874 **ELECTRONIC** MEDICAL MANAGEMENT INC CF-10 277471
ELECTRONIC PUBLISHING TECHNOLOGY CORP /CO CF-09 878747 **ELECTRONIC**
RETAILING SYSTEMS INTERNATIONAL CF-10 317191 **ELECTRONIC** SPECIALTY
PRODUCTS INC CF-08 752294 **ELECTRONIC** SYSTEMS TECHNOLOGY INC CF-08 854556
ELECTRONIC TECHNOLOGY GROUP INC CF-07 773547 **ELECTRONIC** TELE
COMMUNICATIONS INC CF-07 867374 **ELECTRONICS** FOR IMAGING INC CF-10 032312
ELECTRONICS MISSILES & COMMUNICATIONS IN CF-07 103542 ELECTROSOUND GROUP
INC CF-06 823927 ELECTROSOURCE INC CF...INC CF-10 810370 ESCAGENETICS CORP
CF-07 033488 ESCALADE INC CF-05 866706 ESCO **ELECTRONICS** CORP CF-10 828941
ESELCO INC CF-10 313757 ESKEY INC CF-09 230624 ESPERO ENERGY CORP CF-07
033533 ESPEY MANUFACTURING & **ELECTRONICS** CORP CF-06 033541 ESQUIRE RADIO
& **ELECTRONICS** INC CF-06 814037 ESSEF CORP CF-05 355199 ESSEX CORPORATION
CF-06 046189 ESSEX...

... 09 725282 EXECUTONE INFORMATION SYSTEMS INC CF-04 813781 EXIDE CORP
CF-03 772372 EXIDE **ELECTRONICS** GROUP INC CF-05 034046 EXOLON ESK CO CF-05
034047 EXOTECH INC CF-08...CONSOLIDATED MINING CO INC CF-07 038725 FRANKLIN
ELECTRIC CO INC CF-05 356841 FRANKLIN **ELECTRONIC** PUBLISHERS INC CF-05
846903 FRANKLIN FINANCIAL CORP /TN/ CF-09 723646 FRANKLIN FINANCIAL
SERVICES...

... CF-10 038984 FREMONT GENERAL CORP CF-09 849805 FRENCHTEX INC CF-06
039020 FREQUENCY **ELECTRONICS** INC CF-05 320185 FRESSENIUS USA INC CF-06
802354 FRESH JUICE CO INC CF...06 040461 GENERAL BINDING CORP CF-04 040472

Search Report from Ginger R. DeMille

GENERAL BUILDERS CORP CF-07 831104 GENERAL **CELLULAR** CORP CF-09 808461
GENERAL COMMUNICATION INC CF-05 788306 GENERAL COMPUTER CORP CF-06...

... CF-10 880643 GENTA INCORPORATED /DE/ CF-10 355811 GENTEX CORP CF-06
840715 GENTNER **ELECTRONICS** CORP CF-08 040987 GENUINE PARTS CO CF-02
837913 GENUS INC CF-05 732485...CO INC CF-03 313563 GRAYBAR ELECTRIC CO INC
VOTING TRUST CF-09 833216 GRAYHOUND **ELECTRONICS** INC CF-07 841008
GRAYSTONE COMPANIES INC CF-09 201944 GRC INTERNATIONAL INC CF-05...A CF-09
727048 IEA MARINE CONTAINER INCOME FUND V-B CF-09 049728 IEC **ELECTRONICS**
CORP CF-10 050292 IEH CORPORATION CF-07 052485 IES UTILITIES INC CF-03
785546... CORP CF-09 818674 INTELICALL INC CF-05 730169 INTELICORP INC
CF-06 814430 INTELLIGENT **ELECTRONICS** INC CF-04 862668 INTELLIGENT
SURGICAL LASERS INC CF-10 320340 INTELLIGENT SYSTEMS CORP CF...
INTERNATIONAL DESIGN GROUP INC /DE/ CF-08 714774 INTERNATIONAL DYNAMIC
PICTURES CF-10 717751 INTERNATIONAL **ELECTRONICS** INC CF-08 884506
INTERNATIONAL FAMILY ENTERTAINMENT INC CF-10 885549 INTERNATIONAL FAST FOOD
CORPORATION... CF-07 351903 JACKPOT ENTERPRISES INC CF-05 052969 JACLYN INC
CF-06 052971 JACO **ELECTRONICS** INC CF-06 052988 JACOBS ENGINEERING GROUP
INC /DE/ CF-04 812127 JACOBS JAY INC...

... CF-10 200406 JOHNSON & JOHNSON CF-02 053669 JOHNSON CONTROLS INC CF-02
053678 JOHNSON **ELECTRONICS** INC CF-07 053748 JOHNSON PRODUCTS CO INC CF-06
788329 JOHNSON WORLDWIDE ASSOCIATES INC... 03 885720 KENNEDY WILSON INC
CF-10 885720 KENNEDY WILSON INC CF-10 793024 KENT **ELECTRONICS** CORP CF-06
316028 KENT FINANCIAL SERVICES INC CF-06 055345 KENTUCKY CENTRAL LIFE
INSURANCE...730991 KURZWEIL MUSIC SYSTEMS INC CF-06 842009 KUSHNER LOCKE CO
CF-06 057041 KUSTOM **ELECTRONICS** INC CF-07 057055 KV PHARMACEUTICAL CO
/DE/ CF-05 202356 KYSOR INDUSTRIAL CORP/MI...LOUISVILLE GAS & ELECTRIC CO
/KY/ CF-02 060667 LOWES COMPANIES INC CF-02 804073 LOWRANCE **ELECTRONICS**
INC CF-06 798953 LOYOLA CAPITAL CORP CF-07 714530 LSB BANCSHARES INC /NC/
CF... 10 890801 MCAFEE ASSOCIATES INC CF-10 855372 MCC HOLDINGS INC CF-10
818687 MCCAWE **CELLULAR** COMMUNICATIONS INC CF-02 063686 MCCLAIN INDUSTRIES
INC CF-06 822043 MCCLATCHY NEWSPAPERS INC CF...CF-09 065231 METALLURGICAL
INDUSTRIES INC CF-07 203200 METATEC CORP CF-06 065270 METHODE **ELECTRONICS**
INC CF-05 829321 METLIFE TEXAS HOLDINGS INC CF-10 846722 METRIC INCOME
TRUST SERIES...CF-08 066544 MILASTAR CORP CF-07 858387 MILESTONE PROPERTIES
INC CF-10 066270 MILGRAY **ELECTRONICS** INC CF-05 873781 MILLBURN CURRENCY
FUND II LP CF-10 791905 MILLER BUILDING SYSTEMS...06 068480 MOTOR CLUB OF
AMERICA CF-06 810745 MOTOR WHEEL CORP CF-10 068505 **MOTOROLA** INC CF-02
790381 MOTORS MECHANICAL REINSURANCE CO LTD CF-01 846340 MOTTS HOLDINGS INC
...

...MSB BANCORP INC /DE/ CF-10 104501 MSE CABLE SYSTEMS INC CF-08 354807 MSI
ELECTRONICS INC CF-07 922863 MTL INC CF-10 068709 MTS SYSTEMS CORP CF-04
710197...070684 NATIONAL WESTERN LIFE INSURANCE CO CF-04 070858 NATIONSBANK
CORP CF-02 795265 NATIONWIDE **CELLULAR** SERVICE INC CF-06 780053 NATIONWIDE
HEALTH PROPERTIES INC CF-04 787253 NATURAL ALTERNATIVES INTERNATIONAL...

... 06 883946 NETWORK IMAGING CORP CF-10 319645 NETWORK SYSTEMS CORP CF-04
071106 NETWORKS **ELECTRONIC** CORP CF-07 866983 NETWORTH INC CF-10 884065
NEUREX CORP CF-10 849043 NEUROGEN... NTS PROPERTIES VI CF-05 814222 NTS
PROPERTIES VII LTD CF-07 718074 NU HORIZONS **ELECTRONICS** CORP CF-06 314928
NU MED INC CF-04 840759 NU WEST INDUSTRIES INC CF...

3/3,K/22 (Item 1 from file: 233)
DIALOG(R)File 233:Internet & Personal Comp. Abs.
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00534494 99PI05-201

1522-Dec-0304:26 PM

High-IQ homes -- New Motorola DigitalDNA Lab aims to get smart appliances to talk among themselves

Nash, Sharon

PC Magazine , May 25, 1999 , v18 n10 p28, 1 Page(s)

ISSN: 0888-8507

Presents a profile of the **Motorola** DigitalDNA Laboratory, created in conjunction with the MIT Media Lab and designed for research for...

... each other and to respond to the presence of the user. States that research includes **Motorola**'s **Piano** , a **wireless** technology which can transmit information over a 10-foot distance at a speed of 100...

3/3,K/23 (Item 1 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

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01428517

Computer software product, communication device and resource device for an unmanaged communication network

Computer-Software Produkt, Kommunikationseinheit und Hilfsmittelinheit fur ein nicht kontrolliertes Kommunikationsnetz

Logiciel, dispositif de transmission et dispositif de ressource pour un reseau de transmission non-controlé

PATENT ASSIGNEE:

Sony International (Europe) GmbH, (2963490), Kemperplatz 1, 10785 Berlin, (DE), (Applicant designated States: all)

INVENTOR:

Mandato, Davide, Sony International (Europe) GmbH, Advanced Technology Center Stuttgart, Hedelfinger Strasse 61, 70327 Stuttgart, (DE)

LEGAL REPRESENTATIVE:

Korber, Martin, Dipl.-Phys. et al (88321), Mitscherlich & Partner Patentanwalte Sonnenstrasse 33, 80331 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 1206080 A1 020515 (Basic)

APPLICATION (CC, No, Date): EP 2000124472 001108;

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE; TR

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: H04L-012/56

ABSTRACT WORD COUNT: 152

NOTE:

Figure number on first page: 1

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

| Available Text | Language | Update | Word Count |
|------------------------------------|-----------|--------|------------|
| CLAIMS A | (English) | 200220 | 1485 |
| SPEC A | (English) | 200220 | 10608 |
| Total word count - document A | | | 12093 |
| Total word count - document B | | | 0 |
| Total word count - documents A + B | | | 12093 |

...SPECIFICATION and persistency framework, Sun Microsystems, Inc., provides the Java activation framework. As device discovery protocols, **Bluetooth** SIG proposes the **Bluetooth** technology and **Motorola** Inc. proposes the **Piano** technology. Sun Microsystems Inc. proposes the Jini technology in relation to dynamic service attributes. An...

...Mobile multimedia applications over mobile ad-hoc networks are proposed

on the basis of the **Bluetooth** technology by **Bluetooth** SIG and the **Piano** technology by **Motorola** Inc. Service discovery protocols are proposed by Sun Microsystems Inc. in the Jini technology, by IETF in the simple service discovery protocol (SSDP) and service location protocol (SLP) and by **Motorola** Inc. in the **Piano** technology. The concept of tuple spaces for mobile computing has been proposed by David Gelernter...

3/3,K/24 (Item 2 from file: 348)

DIALOG(R) File 348:EUROPEAN PATENTS

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01291362

Communication device and software for operating multimedia applications
Kommunikationsgerat und Software zum Betrieb von Multimedia-Anwendungen
Appareil et logiciel de communication pour des applications multimedias
PATENT ASSIGNEE:

Sony International (Europe) GmbH, (2328250), Hugo-Eckener-Strasse 20,
50829 Koln, (DE), (Applicant designated States: all)

INVENTOR:

Kovacs, Erno, Sony International (Europe) GmbH, Stuttgart Techn. Center,
Stuttgarter Strasse 106, 70736 Fellbach, (DE)

Mandato, Davide, Sony International (Europe) GmbH, Stuttgart Techn.
Center, Stuttgarter Strasse 106, 70736 Fellbach, (DE)

LEGAL REPRESENTATIVE:

Korber, Martin, Dipl.-Phys. et al (88321), Mitscherlich & Partner
Patentanwalte Sonnenstrasse 33, 80331 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 1107512 A1 010613 (Basic)

APPLICATION (CC, No, Date): EP 99124216 991203;

DESIGNATED STATES: DE; FR; GB

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: H04L-012/24; H04L-029/06

ABSTRACT WORD COUNT: 139

NOTE:

Figure number on first page: 1

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

| Available Text | Language | Update | Word Count |
|------------------------------------|-----------|--------|------------|
| CLAIMS A | (English) | 200124 | 840 |
| SPEC A | (English) | 200124 | 8316 |
| Total word count - document A | | | 9156 |
| Total word count - document B | | | 0 |
| Total word count - documents A + B | | | 9156 |

...SPECIFICATION and persistency framework, Sun Microsystems Inc. provides the Java activation framework. As device discovery protocols, **Bluetooth** SIG proposes the **Bluetooth** technology and **Motorola** Inc. proposes the **Piano** technology. Sun Microsystems Inc. proposes the Jini technology in relation to dynamic service attributes. An...

...Mobile multimedia applications over mobile ad-hoc networks are proposed on the basis of the **Bluetooth** technology by **Bluetooth** SIG and the **Piano** technology by **Motorola** Inc. Service discovery protocols are proposed by Sun Microsystems Inc. in the Jini technology, by IETF in the Simple Service Discovery Protocol (SSDP) and Service Location Protocol (SLP) and by **Motorola** Inc. in the **Piano** technology. Tuple spaces are proposed by David Gelernter in the Linda technology and by Sun...

Search Report from Ginger R. DeMille

3/3,K/25 (Item 1 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00853176 **Image available**

**A METHOD AND SYSTEM FOR A WIRELESS UNIVERSAL MOBILE PRODUCT INTERFACE
PROCEDE ET SYSTEME POUR UNE INTERFACE DE PRODUIT MOBILE UNIVERSEL SANS FIL**

Patent Applicant/Assignee:

ACCENTURE S A, 55, avenue George V, F-75379 Paris Cedex 08, FR, FR

(Residence), FR (Nationality), (For all designated states except: US)

Patent Applicant/Inventor:

CAMERON Richard Neill, 6, Bastides de la Mourachonne, F-06370 Mouans

Sartoux, FR, FR (Residence), FR (Nationality), (Designated only for:
US)

FEINBIER Loic Jaouen, 604, avenue George Pompidou, F-06110 Le Cannet, FR,

FR (Residence), FR (Nationality), (Designated only for: US)

Legal Representative:

PRICE Nigel John King (et al) (agent), J.A. Kemp & Co., 14 South Square,

Gray's Inn, London WC1R 5LX, GB,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200186881 A2-A3 20011115 (WO 0186881)

Application: WO 2001EP4628 20010424 (PCT/WO EP0104628)

Priority Application: US 2000199488 20000425

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU

CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR

KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE

SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 24286

Fulltext Availability:

Detailed Description

Detailed Description

... of a service protocol that allows devices to intelligently negotiate
information exchange.

Other technologies like **Motorola 'STM Piano** , which can be built on top
of

Bluetooth , specifies what sort of information they exchange and how
they
communicate. It and other operating...

3/3,K/26 (Item 2 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00800248 **Image available**

**A METHOD AND SYSTEM FOR AUDIENCE PARTICIPATION AND SELECTIVE VIEWING OF
VARIOUS ASPECTS OF A PUBLIC PERFORMANCE OR A TEACHING VENUE**

**PROCEDE ET SYSTEME POUR LA PARTICIPATION DU PUBLIC ET LE VISIONNEMENT
SELECTIF DE DIVERS ASPECTS D'UNE EXECUTION ARTISTIQUE AU NIVEAU DE
L'OPERA, DE LA SYMPHONIE, DU THEATRE, DE LA DANSE OU DE LEURS
COMBINAISONS ET VARIATIONS**

Search Report from Ginger R. DeMille

Patent Applicant/Inventor:

GLASER Donald A, 41 Hill Road, Berkeley, CA 94078, US, US (Residence), US
(Nationality)

Legal Representative:

BASINSKI Erwin J (et al) (agent), Morrison & Foerster LLP, 755 Page Mill
Road, Palo Alto, CA 94304-1018, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200133859 A1 20010510 (WO 0133859)

Application: WO 2000US41629 20001025 (PCT/WO US0041629)

Priority Application: US 99163893 19991105

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ

DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ

LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG

SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 4072

Fulltext Availability:

Detailed Description

Detailed Description

... Intel CorporationTM, Nokia CorporationTM, Telephon ABTM, L. M.
EricssonTM and Toshiba CorporationTM.

Other technologies like **Motorola 'STM Piano** , which can be built on top
of **Bluetooth** , specifies what sort of information they exchange and how
they communicate. It and other operating...

3/3,K/27 (Item 1 from file: 545)

DIALOG(R)File 545:Investext(R)

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0015722988

WIRELESS WORLD : THE MOBILE TELEPHONE INDUSTRY

BANC OF AMERICA

YANIS, S.R., ET AL

CALIFORNIA (STATE OF)

DATE: April 25, 02

INVESTEXT(tm) REPORT NUMBER: 8507849, PAGE 28 OF 289, TEXT PAGE

This is a(n) INDUSTRY report.

TEXT:

Threat to **Wireless** Carrier Data Revenues?

While Wi-Fi may prove to be a competitive threat to **wireless** carrier
data service offerings, we believe the competitive threat will be somewhat
limited and may even have a positive impact on **wireless** data business by
serving to increase demand and awareness of **wireless** carrier data
services. Wi-Fi, due to its design, has an operating reach of approximately

... in which this technology may flourish, and areas that may eat into the
data revenues **wireless** carriers were aiming for. However, this technology

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may also complement 2.5G and 3G technology -- first by getting users more comfortable with **wireless** network access and then as a complement to **wireless** coverage (where, for example, a WISP subscriber could roam from a Wi-Fi network to...

... data networks with software finding the "path of least resistance" or the cheapest and fastest connection.

Wireless Data Devices Different Shapes and Sizes

The growth of **wireless** data will come in many shapes, forms and sizes. Not only will **wireless** data be transmitted over different technologies, such as CDMA, TDMA and GSM, but it will also come into the user's **wireless** handsets, **wireless** PDAs and laptops. The idea is to supply enough choices in order to allow subscribers to find the product that suits their needs best.

Wireless Handsets

Motorola

V70. The V70 is SMS capable, allows FM stereo and has always-on Internet connectivity...

... mail, handwriting recognition, IM, EMS (enhanced messaging service), fax, Internet access, PIM/PDA functionality, virtual **piano** keyboard for composing alerts and the ability to add applications.

C330. Small and sleek, designed...

...traditional voice and data solutions.

T280I. Operating on a GSM/GPRS network, this phone combines **wireless** model and IM capabilities in addition to web access, SMS and **Bluetooth** technology.

3/3,K/28 (Item 2 from file: 545)

DIALOG(R) File 545: Investext(R)

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00109417

Test and Measurement Industry Report

ROBERT FLEMING, INC.

Cooper, J.W.

NEW YORK

DATE: June 7, 84

INVESTEXT(tm) REPORT NUMBER: 405578, PAGE 4 OF 14, TEXT PAGE

This is a(n) INDUSTRY report.

TEXT:

...we project -- VLSI chip testers and digital field service testers. ATE has come first in **piano**-sized minicomputer-driven systems designed to test at either the loaded PC board level or...

...tests. Detailed testing specifications for industry standard microprocessor chips such as the Intel 8088 and **Motorola** 68000 are available selectively to the larger

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well-heeled computer companies, but much of the...
...of-nails" fixture to uncover these subsidiary
fault levels through node-by-node analysis; the **electronic**
"partitioning" concept earlier referred to was and is an important
element in in-circuit testing...

3/3,K/29 (Item 1 from file: 583)

DIALOG(R)File 583:Gale Group Globalbase(TM)
(c) 2002 The Gale Group. All rts. reserv.

05678654

Rebels turned diplomats

UK - GENERAL MAGIC TO DISCUSS TECHNOLOGY

Financial Times (C) 1992 (FT) 8 February 1993 p8

... his motorbike in the lobby and the foyer was furnished with games and a
grand **piano** . This young company, which has been a hot topic of computer
industry rumour ever since...

... software for 'personal communicators', pocket-sized devices that will
enable users to send and receive **electronic** messages. So high are
expectations for this fledgling that many in the industry believe it...

... s largest high-technology manufacturers. General Magic's partners are
Apple Computer, AT&T and **Motorola** of the US, Sony and Matsushita of Japan
and Philips of the Netherlands. All are...

3/3,K/30 (Item 1 from file: 608)

DIALOG(R)File 608:KR/T Bus.News.

(c)2003 Knight Ridder/Tribune Bus News. All rts. reserv.

06651663 (USE FORMAT 7 OR 9 FOR FULLTEXT)

San Jose Mercury News, Calif., Dan Gillmor Column

Dan Gillmor

San Jose (Calif.) Mercury News

April 11, 1999

DOCUMENT TYPE: NEWSPAPER RECORD TYPE: FULLTEXT LANGUAGE: ENGLISH

WORD COUNT: 1268

...TEXT: been moving that way for some time, long before the Internet grew
so popular. My **wireless** phone is digital; it translates my voice into
zeroes and ones that get zapped on...

...do list. My MIDI music workstation is nothing more than a specialized
computer with a **piano** -like keyboard.
Now we're connecting various devices to the mother of all digital networks
...

...looms a category that will explode in popularity in the next several
years: Internet-capable **wireless** phones and hand-held computers, to
mention just two such devices. When you're connecting to the Net from this
end of the market, and on a **wireless** device, you're in a different
universe than a normal PC using a typical modem...

...short lines of information about the call, or a list of phone numbers,
or a **pager** -like numeric message -- those sorts of things.
But connect a **wireless** phone to the Internet and you have a different
matter. The Web sites I routinely...

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...transmit compared with graphical information or audio files, much less videos. (A coming generation of **wireless** phones will move data much faster, but this is at least several years away.)
Some...from the technology community and investors.
Early results are beginning to appear. Online Anywhere, a **Motorola** -funded start-up based in Palo Alto, just signed a deal to help Yahoo deliver...

...of human and machine. The layout of the screen and keyboard, on a computer or **wireless** phone, fits into this category.
Why are so many user interfaces so awful? And what...

3/3,K/31 (Item 1 from file: 613)

DIALOG(R)File 613:PR Newswire
(c) 2003 PR Newswire Association Inc. All rts. reserv.

00838225 20021016NYW043 (USE FORMAT 7 FOR FULLTEXT)

AT&T Wireless Launches Industry's Most Comprehensive Music

PR Newswire

Wednesday, October 16, 2002 09:00 EDT

JOURNAL CODE: PR LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT

DOCUMENT TYPE: NEWSWIRE

WORD COUNT: 1,396

...technology on the handset have converged to enable the music capabilities launched today. "Next-generation **wireless** devices, networks and applications allow us to offer our customers a music experience never before possible on **wireless** phones," said Dahan.

Polyphonic ring tones are among these advancements. Polyphonic ring tones are melodies...

...a rich, full sound.

Certain new phones contain small sound cards that can play bass, **piano**, guitar and drums in a single melody.

The AT&T **Wireless** library of polyphonic ring tones is one of the largest collections in the U.S., offering hundreds of songs for \$1.99 each. In the coming weeks, AT&T **Wireless** will offer two polyphonic-capable phones the **Motorola** T720 and the Nokia 3590. Customers may order polyphonic ring tones via the Web, their...

...<http://www.attwsaccessories.com/direct/att/phonelist.jsp>

With these new music offers, AT&T **Wireless** customers can enjoy their favorite tunes where, when and how they want to do so...

3/3,K/32 (Item 1 from file: 647)

DIALOG(R)File 647:CMP Computer Fulltext

(c) 2003 CMP Media, LLC. All rts. reserv.

01188596 CMP ACCESSION NUMBER: EET19990405S0053

Motorola launches 'Piano' Web site

ELECTRONIC ENGINEERING TIMES, 1999, n 1055, PG44

Search Report from Ginger R. DeMille

PUBLICATION DATE: 990405
JOURNAL CODE: EET LANGUAGE: English
RECORD TYPE: Fulltext
SECTION HEADING: Systems & Software
WORD COUNT: 101

TEXT:

Scottsdale, Ariz. - **Motorola** Internet and Networking Group has just unveiled the **Motorola Piano** Platform Web site. The **Motorola Piano** Platform provides short-range, **wireless** connectivity at high **bandwidth** to a variety of mobile devices, creating spontaneous networks among them. **Piano** provides a common extensible platform for thousands of professional and consumer applications, **Motorola** said.

3/3,K/33 (Item 2 from file: 647)
DIALOG(R)File 647:CMP Computer Fulltext
(c) 2003 CMP Media, LLC. All rts. reserv.

01184290 CMP ACCESSION NUMBER: EET19990208S0009
Moto tunes 'Piano' network in post-PC play
Alexander Wolfe
ELECTRONIC ENGINEERING TIMES, 1999, n 1047, PG4
PUBLICATION DATE: 990208
JOURNAL CODE: EET LANGUAGE: English
RECORD TYPE: Fulltext
SECTION HEADING: News
WORD COUNT: 980

... appliances automatically attach themselves to a network on which they can communicate and share services.)

Motorola 's timely tie-in with Sun may give **Piano** a real-world edge over a panoply of untried broadband technologies being formulated by several **wireless** standards groups, such as the IEEE 802.11 **wireless** - LAN working group (see Jan 18, page 1).

"This is in essence our Jini, but...

...so you don't even need a JVM," Leeper said.

In technical terms, the first **Piano** chips, due later this year, will support a frequency of 2.4 GHz and provide a 5- to 10-meter range. However, since higher frequencies by definition support broader **bandwidths**, **Motorola** intends to ramp the technology up into the 5-GHz region quickly.

Ultimately, **Motorola** will field parts in the 59-GHz to 60-GHz band, which is the millimeter...

...radar and communications systems. Leeper said that "60 GHz is made to order because of **bandwidth** considerations. This is unlicensed territory, so an FCC license would not be required to operate a **Piano** network."

For its part, **Motorola** appears poised to jump into **Piano** not only on the...

...be that Bluetooth would require a Java socket, while **Piano** takes a proxy approach.

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Interestingly, **Motorola** has been working to get **Piano** added into the **Bluetooth** spec. The overall spec should be ready in the second half, sources said.

For Sun...

3/3,K/34 (Item 1 from file: 654)

DIALOG(R) File 654:US Pat.Full.

(c) Format only 2003 The Dialog Corp. All rts. reserv.

5266246 **IMAGE Available

Derwent Accession: 2003-656480

Utility

Pointing device based upon the hall effect and method for operating the same

Inventor: Helmbrecht, Robert Edward, Phoenix, AZ

Assignee: Honeywell International Inc. (02), Morristown, NJ

Examiner: Chang, Kent (Art Unit: 263)

Assistant Examiner: Lewis, David L.

| | Publication Number | Kind | Date | Application Number | Filing Date |
|-------------|-----------------------|------|----------|-----------------------|----------------|
| Main Patent | US 6583784 | A | 20030624 | US 99474716 | 19991229 |

Fulltext Word Count: 3466

Description of the Invention:

...should be noted that the present invention may employ any number of conventional techniques for **electronics** configuration, signaling, data processing, mechanical configuration and the like in any way. Indeed, for the sake of brevity, conventional **electronics**, software development and other functional aspects of the systems (and components of the individual operating...detector. The output signal may be computed and/or provided by, for example, position processing **electronics** as described below...

...102, and the rotation is converted to an output signal provided via cable 112 by **electronics** located within housing 102. Buttons such as buttons 106, 108 and 110 may be used processing **electronics** 210. Signals 214 and 216 may be any form of electrical or optical output signal...

...Position processing **electronics** 210 suitably include any hardware or software equipment for receiving signals 214 and 216 from...

...212 that is indicative of the rotation of ball 104. In various embodiments, position processing **electronics** 210 suitably include a microprocessor or microcontroller such as any of the microcontroller products available from, for example, the **Motorola** Corporation of Schaumburg, Ill., the Intel Corporation of Santa Clara, Calif., or the Microchip Corporation of Chandler, Ariz. Alternatively, a digital signal processor (DSP) could be used with position processing **electronics** 210. Exemplary digital signal processors include those available from, for example, the Texas Instruments Corporation of **Piano**, Tex., or the Lucent Corporation of Murray Hill, N.J. The various microcontrollers, microprocessors, or...particular position by sensor 206 is indicative of the orientation of ball 104. Position processing **electronics** 210 may suitably provide an output signal 212 that corresponds to the position of

Search Report from Ginger R. DeMille

ball...206 and 208 suitably provide outputs 214 and 216, as described above, to position processing **electronics** 210 to indicate the passage of an element 302 in proximity with the relevant sensor...chart of an exemplary technique 400 suitable for producing output signal 212 at position processing **electronics** 210. Technique 400 suitably includes determining in initial position (step 402) of ball 104 through...signals 214 and 216 may thusly contain indications of rotation in two directions. Position processing **electronics** 212 may then produce an output signal 212 that is indicative of

3/3,K/35 (Item 2 from file: 654)

DIALOG(R)File 654:US Pat.Full.

(c) Format only 2003 The Dialog Corp. All rts. reserv.

0005203408 **IMAGE Available

Derwent Accession: 2002-089816

Method and system for a wireless universal mobile product interface

Inventor: Richard Cameron, INV

Loic Feinbier, INV

Correspondence Address: MORRISON & FOERSTER LLP, 425 MARKET STREET, SAN FRANCISCO, CA, 94105-2482, US

| | Publication Number | Kind | Date | Application Number | Filing Date |
|-------------|-----------------------|------|----------|-----------------------|----------------|
| Main Patent | US 20030055735 | A1 | 20030320 | US 2001840477 | 20010423 |
| Provisional | | | | US 60-199488 | 20000425 |

Fulltext Word Count: 19003

Summary of the Invention:

...0012] Other technologies like **Motorola 's(TM) Piano** , which can be built on top of **Bluetooth** , specifies what sort of information they exchange and how they communicate. It and other operating systems, like Symbian Ltd.s(TM) Epoc32 for mobile devices, can support **Bluetooth** and JINI technology...

3/3,K/36 (Item 3 from file: 654)

DIALOG(R)File 654:US Pat.Full.

(c) Format only 2003 The Dialog Corp. All rts. reserv.

0004892222 **IMAGE Available

new-utility

Communication device and software for operating multimedia applications

Inventor: Ern?ouml; Kovacs, INV

Davide Mandato, INV

Correspondence Address: FROMMER LAWRENCE & HAUG, 745 FIFTH AVENUE, NEW YORK , NY, 10151, US

| | Publication Number | Kind | Date | Application Number | Filing Date |
|-------------|-----------------------|------|----------|-----------------------|----------------|
| Main Patent | US 20010003191 | A1 | 20010607 | US 2000728018 | 20001201 |
| Priority | | | | EP 99124216 | 19991203 |

Fulltext Word Count: 11160

Search Report from Ginger R. DeMille

Summary of the Invention:

...and persistency framework, Sun Microsystems Inc. provides the Java activation framework. As device discovery protocols, **Bluetooth** SIG proposes the **Bluetooth** technology and **Motorola** Inc. proposes the **Piano** technology. Sun Microsystems Inc. proposes the Jini technology in relation to dynamic service attributes. An...

...Mobile multimedia applications over mobile ad-hoc networks are proposed on the basis of the **Bluetooth** technology by **Bluetooth** SIG and the **Piano** technology by **Motorola** Inc. Service discovery protocols are proposed by Sun Microsystems Inc. in the Jini technology, by IETF in the Simple Service Discovery Protocol (SSDP) and Service Location Protocol (SLP) and by **Motorola** Inc. in the **Piano** technology. Tuple spaces are proposed by David Gelernter in the Linda technology and by Sun...

3/3,K/37 (Item 4 from file: 654)

DIALOG(R)File 654:US Pat.Full.

(c) Format only 2003 The Dialog Corp. All rts. reserv.

4852101 **IMAGE Available

Derwent Accession: 2002-706949

Utility

M/ **Noninvasive measurement of chemical substances**

Inventor: Abreu, Marcio Marc, 3304 Diswell Ave., North Haven, CT, 06473

Assignee: Unassigned

Unassigned Or Assigned To Individual (Code: 68000)

Examiner: Winakur, Eric F. (Art Unit: 376)

Assistant Examiner: Veniaminov, Nikita R

Law Firm: Jacobson Holman PLLC

| | Publication Number | Kind | Date | Application Number | Filing Date |
|--------------|-----------------------|------|----------|-----------------------|----------------|
| Main Patent | US 6544193 | A | 20030408 | US 2001790653 | 20010223 |
| Continuation | US 6312393 | A | | US 2000517124 | 20000229 |
| Continuation | US 6120460 | A | | US 98184127 | 19981102 |
| Continuation | US 5830139 | A | | US 96707508 | 19960904 |

Fulltext Word Count: 102208

Description of the Invention:

...all x-y-z directions. In particular, the lens L4 is made to include a **piano** surface, the piano surface being made partially reflective so that a patient is able to...signals and the force that is applied. The resulting measurements can be recorded or stored **electronically** in a number of ways. The changes in current over time, for example, can be... 400 can be communicated by cable, it is preferably actively or passively transmitted in a **wireless** manner to the receiver 404 which is remotely located with respect to the contact device...arrangements. Preferably, the modern techniques of manufacturing integrated circuits are exploited in order to make **electronic** components small enough for placement on the eyeglass frame 408. The receiver 404, for example, may be connected to various miniature **electronic** components 418, 419, 420, as schematically illustrated in FIG. 31, capable of processing, storing, and ...

3/3,K/38 (Item 5 from file: 654)

Search Report from Ginger R. DeMille

DIALOG(R)File 654:US Pat.Full.

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4758247 **IMAGE Available

Derwent Accession: 1999-633768

Utility

E/ **Data indexing technique**

Inventor: Ambroziak, Jacek, Acton, MA

Assignee: Sun Microsystems, Inc. (02), Palo Alto, CA

Sun Microsystems Inc (Code: 24836)

Examiner: Amsbury, Wayne (Art Unit: 211)

Law Firm: Gunnison, McKay & Hodgeson, L.L.P.

Combined Principal Attorneys: McKay, Philip J.

| | Publication Number | Kind | Date | Application Number | Filing Date |
|--------------|-----------------------|------|----------|-----------------------|----------------|
| | ----- | -- | ----- | ----- | ----- |
| Main Patent | US 6460047 | A | 20021001 | US 2000535632 | 20000324 |
| Continuation | US 6055526 | A | | US 9854373 | 19980402 |

Fulltext Word Count: 12980

Description of the Invention:

...In one embodiment of the invention, the processor 113 is a microprocessor manufactured by **Motorola**, such as the 680X0 processor or a microprocessor manufactured by Intel, such as the 80X86...interface 120 provides a data communication connection via network link 121 to a compatible LAN. **Wireless** links are also possible. In any such implementation, communication interface 120 sends and receives electrical ...few concepts. An example would be the storing of an index to subject lines of **electronic** mail messages...for the concept "music" can also return results in which the concepts of "songs" or "**piano**" occur...

3/3,K/39 (Item 6 from file: 654)

DIALOG(R)File 654:US Pat.Full.

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4473820 **IMAGE Available

Derwent Accession: 2001-624079

Utility

E/ **Data management system**

Inventor: Tran, Bao Q., 10206 Grove Glen, Houston, TX, 77099

Assignee: Unassigned

Unassigned Or Assigned To Individual (Code: 68000)

Examiner: Alam, Hosain T. (Art Unit: 271)

Assistant Examiner: Mills, III, John G.

Combined Principal Attorneys: Brown, Kurt J.

| | Publication Number | Kind | Date | Application Number | Filing Date |
|-------------|-----------------------|------|----------|-----------------------|----------------|
| | ----- | -- | ----- | ----- | ----- |
| Main Patent | US 6202060 | A | 20010313 | US 96741377 | 19961029 |

Fulltext Word Count: 23514

Description of the Invention:

...processor 20 is a low power CPU such as the MC68328V DragonBall

- device available from **Motorola** Inc...27 can be compressed and transmitted via a suitable network such as the Internet, via **cellular** telephone channels or via facsimile to a remote site...members of the group. The number of callers that can be connected depends on the **bandwidth** available to a given reflector system...where data packets can get delayed or lost because they all share the same congested **electronic** traffic stream. In contrast, telephone callers are allotted an entire circuit for the length of...a data storage device, or disk 30.
- Additionally, the PCMCIA bus 26 can receive a **wireless** transceiver 31, which is connected to an antenna 32. The **wireless** communication device 31 satisfies the need to access **electronic** mail, paging, mode/facsimile, remote access to home computers and the Internet. One simple form of **wireless** communication device 31 is an analog **cellular** telephone link where the user simply accesses a **cellular** channel similar to the making of a regular voice call. However, the transmission of digital data over an analog **cellular** telephone network can give rise to data corruption. Digital **wireless** networks such as **cellular** digital packet data (CDPD) can be used. CDPD provides data services on a noninterfering basis with existing analog **cellular** telephone services. In addition to CDPD, a communication service called Personal Communication Services (PCS) allows **wireless** access into the public service telephone network...
- ...The two-way communication device 31 can also be a two-way **pager** where the user can receive as well as transmit messages. The two-way communication device...narrowband PCS networks. Alternatively, the two-way communication device 31 can be substituted with a **cellular** telephone, whose block diagram and operation are discussed in detail in a co-pending U...
 - ...In the event that two-way **paggers** are used, the present invention contemplates that the two-way communication device 31 be compatible...
 - ...Communications Technology), which is an open standard developed by Cirrus Logic--PCSI and AT&T **Wireless** Services Inc. (Kirkland, Wash.). pACT is a narrowband, 900 Mhz range PCS technology derived from the **cellular** digital packet data transmission standard. pACT is optimized for applications such as acknowledgment paging, mobile e-mail, **wireless** Internet access, voice paging, personal home security and dispatch services. Based on the Internet IP...
 - ...delivery of reliable and secure messages. Alternatively, in place of pACT, a REFLEX protocol from **Motorola** Inc. may be used. The REFLEX protocol is commercially supported by SkyNet--Mtel Corporation...data packets. The receiver and transmitter are standard two-way paging devices or standard portable **cellular** communication chips available from **Motorola**, Inc. in Schaumburg, Ill. or Philips Semiconductors in Sunnyvale, Calif. The antenna 32 is preferably...is compatible with Always-On-Always-Connected (AOAC) mobile clients connected to the Internet via **wireless** communications. The **wireless** messaging networks based on GSM/SMS, pACT, Reflex, and similar narrowband 2-way paging services...
 - ...fragmentation and reassembly, reliability, and tolerance for intermittency to compliment circuit switched connections with low **bandwidth** connections over **wireless** messaging networks. The NBS enables a new class of mobile usage, AOAC, with exciting applications...
 - ...of email, up to date news, weather, traffic, and personal messaging. It enables the existing **cellular** and **wireless** messaging infrastructure to send arbitrary data, rather than just alpha-numeric pages. Thus, the

present...

- ...readable on devices without NBS. This is useful for sending text based messages to legacy **paggers** and voice phones ...Datagram packets are transferred using the message services of an underlying network, where typically the **bandwidth** is small and communication is **wireless** . The protocol assumes the device addressing (Destination Address and the Originating Address) is handled at...based computer systems permits the user to operate the data logging computer system as an **electronic** notepad. For example, graphical images can be input into the pen-based computer by merely...provided to an external multi-timbral MIDI synthesizer which can play many instruments such as **piano** , bass and drums simultaneously. The output of the MIDI player 37 can be connected to the synthesizer by wire or **wirelessly** such as by the infrared communication. In this manner, the MIDI player 37 generates high...and send the information over a transmission medium such as the telephone network or the **wireless** network to transmit the drawings/text to another modem or facsimile receiver, allowing the user...1. Alternatively, the present invention contemplates that the wired link can be replaced by a **wireless** link such as radio or infrared. In such instances, the barcode reader 48 has an...35 of the computer of the present invention, a remote, large display device 52 is **wirelessly** linked to the computer 10 via the IR transceiver 49 or a radio transceiver 31. The large display device 52 can be a suitably equipped television receiver with a **wireless** link and a video generator, as discussed further in FIG. 3, or it can simply...
- ...receiver is provided to receive data transmission from either the IR transceiver 49 or the **wireless** transceiver 31. Preferably, the stereo amplifier is a MIDI compatible synthesizer or sound module. The...data. Due to MIDI's more efficient data storage format, only a portion of the **bandwidth** of the transceivers 31 and 49 need be used to transmit MIDI instruction streams. The...Turning now to FIG. 2B, a **wireless** scanner 27' is shown. In this unit, a **wireless** transceiver 58 is connected to a Universal Asynchronous Receiver/Transmitter (UART) 57, which is in...
- ...The UART 57 serializes data regarding the scanned image and presents the data to the **wireless** transceiver 58 for transmitting back to the computer 10 of FIG. 1. The **wireless** transceiver 58 can ...infrared unit for communicating with the IR transceiver 49 of the computer 10. Alternatively, the **wireless** transceiver 58 can be a radio-based unit for communicating with the **wireless** transceiver 31 of FIG. 1. In this manner, the scanner 27' does not have to **wireless** transceiver 60 and is presented to a UART 61 for conversion into parallel data. The...
- ...62 which generate suitable color RGB video signals. The video signal is provided into driver **electronics** for generating a composite video signal to be delivered to the video input of the...
- ...of a computer, the high level video and sound primitives can be sent via the **wireless** network such as the infrared transmission (IrDA) and subsequently rasterized by the processor of the...Internet protocol (SLIP) 100 over one or more media or telephone network 102, including landline, **wireless** line, or a combination thereof. On the portable computer side, a similar PPP or SLIP...device or in RAM. The cache allows a more efficient Internet access as it saves **bandwidth** and improves access performance significantly. The browser also interprets HyperText Markup Language (HTML) which allows...transformed from a passive giant book of information into an active network capable of supporting **electronic** commerce and virtual ecosystems...

...Internet may be connected to a satellite transmission system 56 which transmits and receives high **bandwidth** data over a satellite 57. The satellite 57 in turn relays the information to one...fixed Internet 150 address associated to a fixed location. Thus, for mobile computers with a **wireless** physical link, the movement or migration of users in the **wireless** network violates the implicit Internet 150 protocol. As **wireless bandwidth** is at a premium, particularly when voice and video data are involved, it is inefficient...

...packets as done in TCP. Furthermore, due to the unpredictable movements of mobile computers with **wireless** links, large variations exist in the available **bandwidths** in each cell and affect the transmission characteristics between the mobile computer 10 and the...To address the problems associated with a **bandwidth** variations caused by the **wireless** environment, the MSS 70 or 71 preferably provides a loss profile transport sub-layer which...

...based on markers placed on the packet by the sender and based on the available **bandwidth** negotiated between the MSS 70 and 71 and the mobile computers 10, 11, 12 or...

...transmitting to the mobile computer 10, 11, 12 or 13 in the event that the **bandwidth** is severely constrained...compressed and delivered to the portable computer system of FIG. 1 the next time a **wireless** connection is established with the two-way communication device ...into one or more packets, compresses the packets and transmits the data via a suitable **wireless** transmitter such as the **pager** or the **wireless** transceiver 31 before the routine of FIG. 26 exits in step 570...routine jumps to step 604 where it queries a database and allows the user to **electronically** mail questions to the technical staff in step 605...

3/3,K/40 (Item 7 from file: 654)

DIALOG(R) File 654:US Pat.Full.

(c) Format only 2003 The Dialog Corp. All rts. reserv.

4428345 **IMAGE Available

Derwent Accession: 1998-077357

Utility

REASSIGNED

E/ **Electronic music instrument system with musical keyboard**

Inventor: Arnold, Rob C., Des Moines, IA

Westlund, II, Warren W., Ames, IA

Van Koevering, David, Hermitage, TN

Lawson, Robert D., Des Moines, IA

Lyda, Lance E., Hurst, TX

Noyce, Kenneth R., West Des Moines, IA

Phillips, Robert, Northbrook, IL

Pursey, John M., Des Moines, IA

Snethen, Gary L., Des Moines, IA

Assignee: Van Koevering Company (02), Des Moines, IA

Van Koevering Co

Examiner: Nappi, Robert E. (Art Unit: 287)

Assistant Examiner: Fletcher, Marlon

Law Firm: Quarles & Brady LLP

| Publication Number | Kind | Date | Application Number | Filing Date |
|-----------------------|------|-------|-----------------------|----------------|
| ----- | -- | ----- | ----- | ----- |

Search Report from Ginger R. DeMille

| | | | | | |
|--------------|------------|---|----------|-------------|----------|
| Main Patent | US 6160213 | A | 20001212 | US 99321920 | 19990528 |
| Continuation | US 5908997 | A | | US 97879678 | 19970623 |
| Continuation | Pending | | | US 9620601 | 19960624 |
| Continuation | Pending | | | US 9621522 | 19960711 |
| Provisional | | | | US 60-20601 | 19960624 |
| | | | | US 60-21522 | 19960711 |

Fulltext Word Count: 14923

Description of the Invention:

...The invention is directed to an **electronic** musical instrument utilizing a computer-based music information management system to process and produce sound...

...information from a variety of information sources to enhance the performance and uses of an **electronic** musical keyboard. The system preferably creates a user-friendly environment, established by a consolidated, touch...system of the invention can generally include a musical keyboard 10 encased in a grand **piano** housing 12. Alternative housings, including upright, console and the like, can be used. The musical...

...15 and a drive 16 for a compact disk 17, each being enclosed in the **piano** housing 12 and optionally hidden behind a cover, such as a hinged door 18...

...flat screen display 20 is preferably positioned flush in a music stand 24 of the **piano** housing 12, although other mountings are possible...A touch screen controller 126 preferably includes a **Motorola** 68HC05 Microprocessor, a TI TLC1543 10 bit analog to digital converter, allowing 1024 points on...The scan **electronics** 96 preferably include a **Motorola** 68HC05 chip with an analog multiplexer that can also poll and process pitch bend and...Because there is a difference in bus architecture between the preferred **Motorola** MIDI co-processor 94 and Intel X86 processor preferred for the main processor CPU 42...

...main differences between processors is on which byte lane the least significant byte is placed. **Motorola** places byte 0, address 0 on D31-D24; Intel places byte 0, address 0 on...

3/3,K/41 (Item 8 from file: 654)

DIALOG(R)File 654:US Pat.Full.

(c) Format only 2003 The Dialog Corp. All rts. reserv.

4425773 **IMAGE Available

Derwent Accession: 2001-233821

Utility

REASSIGNED

E/ Remote data access and management system

Inventor: Tran, Bao Q., 10206 Grove Glen, Houston, TX, 77099

Anthony, Craig A., 2666 Pinnacle Dr., League City, TX, 77573

Assignee: Unassigned

Unassigned Or Assigned To Individual (Code: 68000)

Examiner: Feild, Joseph H. (Art Unit: 276)

Assistant Examiner: Kindred, Alford W.

Combined Principal Attorneys: Brown, Kurt J.

Publication

Application

Filing

3122-Dec-0304:26 PM

Search Report from Ginger R. DeMille

| | Number | Kind | Date | Number | Date |
|-------------|------------|------|----------|-------------|----------|
| | ----- | -- | ----- | ----- | ----- |
| Main Patent | US 6157935 | A | 20001205 | US 96767833 | 19961217 |

Fulltext Word Count: 26099

Description of the Invention:

...processor 20 is a low power CPU such as the MC68328V DragonBall device available from **Motorola** Inc...27 can be compressed and transmitted via a suitable network such as the Internet, via **cellular** telephone channels or via facsimile to a remote site...a data storage device, or disk 30. Additionally, the PCMCIA bus 26 can receive a **wireless** transceiver 31, which is connected to an antenna 32. The **wireless** communication device 31 satisfies the need to access **electronic** mail, paging, mode/facsimile, remote access to home computers and the Internet. One simple form of **wireless** communication device 31 is an analog **cellular** telephone link where the user simply accesses a **cellular** channel similar to the making of a regular voice call. However, the transmission of digital data over an analog **cellular** telephone network can give rise to data corruption. Digital **wireless** networks such as **cellular** digital packet data (CDPD) can be used. CDPD provides data services on a non-interfering basis with existing analog **cellular** telephone services. In addition to CDPD, a communication service called Personal Communication Services (PCS) allows **wireless** access into the public service telephone network two-way communication device 31 can also be a two-way **pager** where the user can receive as well as transmit messages. The two-way communication device...

...narrowband PCS networks. Alternatively, the two-way communication device 31 can be substituted with a **cellular** telephone, whose block diagram and operation are discussed in detail in a co-pending U...

...In the event that two-way **paggers** are used, the present invention contemplates that the two-way communication device 31 be compatible...

...Communications Technology), which is an open standard developed by Cirrus Logic--PCSI and AT&T **Wireless** Services Inc. (Kirkland, Wash.). pACT is a narrowband, 900 Mhz range PCS technology derived from the **cellular** digital packet data transmission standard. pACT is optimized for applications such as acknowledgment paging, mobile e-mail, **wireless** Internet access, voice paging, personal home security and dispatch services. Based on the Internet IP...

...delivery of reliable and secure messages. Alternatively, in place of pACT, a REFLEX protocol from **Motorola** Inc. may be used. The REFLEX protocol is commercially supported by SkyNet--Mtel Corporation...data packets. The receiver and transmitter are standard two-way paging devices or standard portable **cellular** communication chips available from **Motorola** , Inc. in Schaumburg, Ill. or Philips Semiconductors in Sunnyvale, Calif. The antenna 32 is preferably...is compatible with Always-On-Always-Connected (AOAC) mobile clients connected to the Internet via **wireless** communications. The **wireless** messaging networks based on GSM/SMS, pACT, Reflex, and similar narrowband 2-way paging services...

...fragmentation and reassembly, reliability, and tolerance for intermittency to compliment circuit switched connections with low **bandwidth** connections over **wireless** messaging networks. The NBS enables a new class of mobile usage, AOAC, with exciting applications...

...of email, up to date news, weather, traffic, and personal messaging. It

enables the existing **cellular** and **wireless** messaging infrastructure to send arbitrary data, rather than just alpha-numeric pages. Thus, the present...readable on devices without NBS. This is useful for sending text based messages to legacy **paggers** and voice phones NBS has a core set of required features that must be supported...

...Datagram packets are transferred using the message services of an underlying network, where typically the **bandwidth** is small and communication is **wireless**. The protocol assumes the device addressing (Destination Address and the Originating Address) is handled at...based computer systems permits the user to operate the data logging computer system as an **electronic** notepad. For example, graphical images can be input into the pen-based computer by merely...provided to an external multi-timbral MIDI synthesizer which can play many instruments such as **piano**, bass and drums simultaneously. The output of the MIDI player 37 can be connected to the synthesizer by wire or **wirelessly** such as by the infrared communication. In this manner, the MIDI player 37 generates high...and send the information over a transmission medium such as the telephone network or the **wireless** network to transmit the drawings/text to another modem or facsimile receiver, allowing the user...1. Alternatively, the present invention contemplates that the wired link can be replaced by a **wireless** link such ...35 of the computer of the present invention, a remote, large display device 52 is **wirelessly** linked to the computer 10 via the IR transceiver 49 or a radio transceiver 31. The large display device 52 can be a suitably equipped television receiver with a **wireless** link and ...receiver is provided to receive data transmission from either the IR transceiver 49 or the **wireless** transceiver 31. Preferably, the stereo amplifier is a MIDI compatible synthesizer or sound module. The...

...data. Due to MIDI's more efficient data storage format, only a portion of the **bandwidth** of the transceivers 31 and 49 need be used to transmit MIDI instruction streams. The...Turning now to FIG. 2B, a **wireless** scanner 27' is shown. In this unit, a **wireless** transceiver 58 is connected to a Universal Asynchronous Receiver/Transmitter (UART) 57, which is in UART 57 serializes data regarding the scanned image and presents the data to the **wireless** transceiver 58 for transmitting back to the computer 10 of FIG. 1. The **wireless** transceiver 58 can be an infrared unit for communicating with the IR transceiver 49 of the computer 10. Alternatively, the **wireless** transceiver 58 can be a radio-based unit for communicating with the **wireless** transceiver 31 of FIG. 1. In this manner, the scanner 27' does not have to...The high level primitive data transmitted, including characters and form definitions, is received by a **wireless** transceiver 60 and is presented to a UART 61 for conversion into parallel data. The...

...62 which generate suitable color RGB video signals. The video signal is provided into driver **electronics** for generating a composite video signal to be delivered to the video input of the...

...of a computer, the high level video and sound primitives can be sent via the **wireless** network such as the infrared transmission (IrDA) and subsequently rasterized by the processor of the...Internet protocol (SLIP) 100 over one or more media or telephone network 102, including landline, **wireless** line, or a combination thereof. On the portable computer side, a similar PPP or SLIP...device or in RAM. The cache allows a more efficient Internet access as it saves **bandwidth** and improves access performance significantly. In the present invention, each entry in the bookmark has...transformed from a passive giant book of information into an active network capable of supporting **electronic** commerce and

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virtual ecosystems...Internet may be connected to a satellite transmission system 56 which transmits and receives high **bandwidth** data over a satellite 57. The satellite 57 in turn relays the information to one...

...fixed Internet 150 address associated to a fixed location. Thus, for mobile computers with a **wireless** physical link, the movement or migration of users in the **wireless** network violates the implicit Internet 150 protocol. As **wireless bandwidth** is at a premium, particularly when voice and video data are involved, it is inefficient...

...packets as done in TCP. Furthermore, due to the unpredictable movements of mobile computers with **wireless** links, large variations exist in the available **bandwidths** in each cell and affect the transmission characteristics between the mobile ...To address the problems associated with a **bandwidth** variations caused by the **wireless** environment, the MSS 70 or 71 preferably provides a loss profile transport sub-layer which by the sender and based on the available **bandwidth** negotiated between the MSS 70 and 71 and the mobile computers 10, 11, 12 or...

...transmitting to the mobile computer 10, 11, 12 or 13 in the event that the **bandwidth** is severely constrained...chart of the process for teleconferencing with a remote user and for visually sharing an **electronic** chalkboard. The chalkboard conferencing process of FIG. 19A requires DSVD modems as well as the...convert the strokes into vectors and transmit the vector information rather than bitmaps to conserve **bandwidth** on the digital channel...compressed and delivered to the portable computer system of FIG. 1 the next time a **wireless** connection is established with the two-way communication device 31...into one or more packets, compresses the packets and transmits the data via a suitable **wireless** transmitter such as the **pager** or the **wireless** transceiver 31 before the routine of FIG. 26 exits in step 570...routine jumps to step 604 where it queries a database and allows the user to **electronically** mail questions to the technical staff in step 605...

3/3,K/42 (Item 9 from file: 654)

DIALOG(R) File 654:US Pat.Full.

(c) Format only 2003 The Dialog Corp. All rts. reserv.

4385395 **IMAGE Available

Derwent Accession: 2001-014562

Utility

E/ **Natural-scale tone-generator apparatus for MIDI musical keyboards**

Inventor: Brush, Gary T., P.O. Box 2147, Sault Ste. Marie, MI, 49783

Assignee: Unassigned

Unassigned Or Assigned To Individual (Code: 68000)

Examiner: Witkowski, Stanley J. (Art Unit: 287)

| | Publication Number | Kind | Date | Application Number | Filing Date |
|-------------|-----------------------|------|----------|-----------------------|----------------|
| | ----- | -- | ----- | ----- | ----- |
| Main Patent | US 6121534 | A | 20000919 | US 99370971 | 19990809 |

Fulltext Word Count: 11146

Description of the Invention:

...pass capacitor 68 is satisfactory for all tone generator frequencies required for keyboard voicing, and **bandwidth** parameters are not used in

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tone-generator applications...For **piano** tuners, who tune and test tempered-scale octaves by counting beat frequencies, the correct compensation usually happens automatically. **Electronic** tuners can also be used to verify compensation. For five-octave keyboards, the tempered-scale...instructions refer to the microcomputer CCR or SCSR status register bits. The program uses a **Motorola** M68HC05 instruction set to sort out and modify the MIDI binary code

3/3,K/43 (Item 10 from file: 654)

DIALOG(R) File 654:US Pat.Full.

(c) Format only 2003 The Dialog Corp. All rts. reserv.

4341018 **IMAGE Available

Derwent Accession: 2000-087725

Utility

CERTIFICATE OF CORRECTION

E/ Calculator for guitar scales

Inventor: Rogers, John B., 6858 Hunts Point, Queens County, Nova Scotia, CA
, BOT 1G0

Schnare, William, 113 Mayfair Drive, R.R. #7, Bridgewater, Nova
Scotia, CA, B4V 3J5

Assignee: Unassigned

Unassigned Or Assigned To Individual (Code: 68000)

Examiner: Witkowski, Stanley J. (Art Unit: 287)

Law Firm: Henderson & Sturm LLP

| | Publication Number | Kind | Date | Application Number | Filing Date |
|-------------|-----------------------|------|----------|-----------------------|----------------|
| | ----- | -- | ----- | ----- | ----- |
| Main Patent | US 6080925 | A | 20000627 | US 99313841 | 19990517 |
| Priority | | | | CA 2264315 | 19990303 |

Fulltext Word Count: 5530

Description of the Invention:

...in extending battery life while still providing adequate illumination for the active tablature display. The **Motorola** MC68HC711E9 microcontroller is capable of supplying sufficient drive current to illuminate the LED display without...Thus it is apparent that there has been provided in accordance with the invention an **electronic** device in the nature of a hand held calculator that fully satisfies the objects, aims...

...adapted for use with other families of musical instruments, such as, but not exclusive to, **piano** or organ keyboards...

3/3,K/44 (Item 11 from file: 654)

DIALOG(R) File 654:US Pat.Full.

(c) Format only 2003 The Dialog Corp. All rts. reserv.

4311860 **IMAGE Available

Derwent Accession: 1999-633768

Utility

E/ Data indexing technique

Inventor: Ambroziak, Jacek, Acton, MA

Assignee: Sun Microsystems, Inc. (02), Palo Alto, CA

Sun Microsystems Inc (Code: 24836)

Examiner: Amsbury, Wayne (Art Unit: 271)

Search Report from Ginger R. DeMille

Law Firm: The Hecker Law Group

| | Publication Number | Kind | Date | Application Number | Filing Date |
|-------------|-----------------------|------|----------|-----------------------|----------------|
| Main Patent | US 6055526 | A | 20000425 | US 9854373 | 19980402 |

Fulltext Word Count: 12671

Description of the Invention:

...In one embodiment of the invention, the processor 113 is a microprocessor manufactured by **Motorola**, such as the 680X0 processor or a microprocessor manufactured by Intel, such as the 80X86...interface 120 provides a data communication connection via network link 121 to a compatible LAN. **Wireless** links are also possible. In any such implementation, communication interface 120 sends and receives electrical ...few concepts. An example would be the storing of an index to subject lines of **electronic** mail messages...for the concept "music" can also return results in which the concepts of "songs" or "**piano**" occur...

3/3,K/45 (Item 12 from file: 654)

DIALOG(R)File 654:US Pat.Full.

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4240058 **IMAGE Available

Derwent Accession: 2000-095657

LitAlert Accession: P2003-29-32 **See File 670 for Litigation

Utility

REASSIGNED

E/ Detector apparatus

Inventor: Sakar, Subhash C., Amhurst, NH

Assignee: Whistler Corporation of Massachusetts (02), Chelmsford, MA
Whistler Corp of Massachusetts

Examiner: Pihulic, Daniel T. (Art Unit: 362)

Law Firm: Hale and Dorr LLP

| | Publication Number | Kind | Date | Application Number | Filing Date |
|-------------|-----------------------|------|----------|-----------------------|----------------|
| Main Patent | US 5990821 | A | 19991123 | US 97900365 | 19970707 |
| Division | US 5666120 | A | | US 94241593 | 19940512 |
| CIP | Abandoned | | | US 94231400 | 19940422 |

Fulltext Word Count: 16581

Description of the Invention:

...amplifier/filter circuit 28 may, for example, be of the type manufactured by Signetics and **Motorola** and identified as part number NE-592. However any integrated amplifier/filter circuit having similar... region is between 2.0 MHz and 80 MHz. Thus amplifier/filter circuit 28 limits **bandwidth** and thus noise to therefore increase the signal to noise ratio (SNR) of laser circuit...surface of the lens 50b is here provided having a substantially flat shape. Such a **piano**-convex shaped lens is preferably used to avoid excessive spherical aberration...used, VCO 156 uses the voltage controlled capacitance of a varactor diode to accomplish the **electronic** tuning. Thus, a start voltage applied to VCO 156 tunes VCO 156 such that VCO...that particular frequency ranges within the overall frequency range may be excluded from the operational

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bandwidth of the device. Thus, it is possible to provide a radar detector having different operational...

3/3,K/46 (Item 13 from file: 654)

DIALOG(R)File 654:US Pat.Full.

(c) Format only 2003 The Dialog Corp. All rts. reserv.

4151610 **IMAGE Available

Derwent Accession: 1998-077357

Utility

REASSIGNED, EXPIRED

E/ Electronic music instrument system with musical keyboard

Inventor: Arnold, Rob C., Des Moines, IA

Westlund, II, Warren W., Ames, IA

Koevering, David Van, Hermitage, TN

Lawson, Robert D., Des Moines, IA

Lyda, Lance E., Hurst, TX

Noyce, Kenneth R., West Des Moines, IA

Phillips, Robert, Northbrook, IL

Pursey, John M., Des Moines, IA

Snethen, Gary L., Des Moines, IA

Assignee: Van Koevering Company (02), Des Moines, IA

Van Koevering Co

Examiner: Witkowski, Stanley J. (Art Unit: 287)

Law Firm: Quarles & Brady

| | Publication Number | Kind | Date | Application Number | Filing Date |
|-------------|-----------------------|------|----------|-----------------------|----------------|
| | ----- | -- | ---- | ----- | ----- |
| Main Patent | US 5908997 | A | 19990601 | US 97879678 | 19970623 |
| Provisional | | | | US 60-20601 | 19960624 |
| | | | | US 60-21522 | 19960711 |

Fulltext Word Count: 14846

Description of the Invention:

...The invention is directed to an **electronic** musical instrument utilizing a computer-based music information management system to process and produce sound...

...information from a variety of information sources to enhance the performance and uses of an **electronic** musical keyboard. The system preferably creates a user-friendly environment, established by a consolidated, touch...system of the invention can generally include a musical keyboard 10 encased in a grand **piano** housing 12. Alternative housings, including upright, console and the like, can be used. The musical...

...15 and a drive 16 for a compact disk 17, each being enclosed in the **piano** housing 12 and optionally hidden behind a cover, such as a hinged door 18...

...flat screen display 20 is preferably positioned flush in a music stand 24 of the **piano** housing 12, although other mountings are possible...A touch screen controller 126 preferably includes a **Motorola** 68HC05 Microprocessor, a TI TLC1543 10 bit analog to digital converter, allowing 1024 points on...The scan **electronics** 96 preferably include a **Motorola** 68HC05 chip with an analog multiplexer that can also poll and process

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pitch bend and...Because there is a difference in bus architecture between the preferred **Motorola** MIDI co-processor 94 and Intel X86 processor preferred for the main processor CPU 42...main differences between processors is on which byte lane the least significant byte is placed. **Motorola** places byte 0, address 0 on D31-D24; Intel places byte 0, address 0 on...

3/3,K/47 (Item 14 from file: 654)

DIALOG(R)File 654:US Pat.Full.

(c) Format only 2003 The Dialog Corp. All rts. reserv.

4122840 **IMAGE Available

Derwent Accession: 1999-214275

Utility

REASSIGNED, EXPIRED

E/ **Modular digital audio system having individualized functional modules**

Inventor: Christensen, Steven G., Minneapolis, MN

Assignee: Telex Communications, Inc. (02), Minneapolis, MN

Telex Communications Inc

Examiner: Harrell, Robert B. (Art Unit: 274)

Law Firm: Schwegman, Lundberg, Woessner, and Kluth, P.A.

| | Publication Number | Kind | Date | Application Number | Filing Date |
|--------------|-----------------------|------|----------|-----------------------|----------------|
| | ----- | -- | ----- | ----- | ----- |
| Main Patent | US 5883804 | A | 19990316 | US 96687804 | 19960719 |
| Continuation | Abandoned | | | US 95490457 | 19950614 |

Fulltext Word Count: 9514

Description of the Invention:

...also cost-effective in construction. It is cost effective because it uses commercially available components (**Motorola** 56001 DSPs, NCR SCSI Processors, etc.) which reduce development time, costs and risks. It is...limits the host computer's access to the private disk controller to a small, limited **bandwidth** , so that the host computer can access those disks, albeit more slowly, without disturbing audio...skilled in the art will appreciate that the amount of processing, I/O and disk **bandwidth** that can be handled in this system can be expanded greatly by the addition of...O interface 52. Suitable DSPs for this purpose are models 56001 and 56002 available from **Motorola** , Inc. of Schaumburg, Ill. The I/O interface 52 is connected via a digital cableThe I/O processor, in the preferred embodiment, may be a **Motorola** 56001 or 56002 DSP. It acts as a data shuffler, moving data between the disk...In the preferred embodiment shown in FIG. 4, there may be four **Motorola** 56001 or 56002 DSPs 82, 84, 86 and 88 on each DSP Farm card 80...function, a short digital recording of a single note of an instrument, such as a **piano** , is stored in a portion of the sample data memory. The sampler can change the...

...speed of a tape or record), so that the entire range of notes on a **piano** can be played from the recording of just a single note. In reality, more than...

...10 notes on a keyboard, the sampler can play back 10 simultaneous notes of the **piano** sound, each with its own different pitch. The ability to derive many notes from a...

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3/3,K/48 (Item 15 from file: 654)

DIALOG(R)File 654:US Pat.Full.

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4111178 **IMAGE Available

Derwent Accession: 1999-166958

Utility

REASSIGNED

E/ Data collection system

Inventor: Bunte, Alan G., Cedar Rapids, IA

Hanson, George E., Andover, KS

Silva, Dennis, San Jose, CA

Koenck, Steven E., Cedar Rapids, IA

Beard, Paul, Milpitas, CA

Schultz, Darald R., Cedar Rapids, IA

Salvay, Steven H., Cedar Rapids, IA

Assignee: Norand Corporation (02), Cedar Rapids, IA

Norand Corp (Code: 32795)

Examiner: Cosimano, Edward R. (Art Unit: 244)

Law Firm: Suiter & Associates PC

| | Publication Number | Kind | Date | Application Number | Filing Date |
|-------------|-----------------------|------|----------|-----------------------|----------------|
| Main Patent | US 5873070 | A | 19990216 | US 95538430 | 19951002 |
| CIP | Abandoned | | | US 95481688 | 19950607 |

Fulltext Word Count: 7212

Description of the Invention:

...be a laser scanner or an array based reader, likewise, the reader 26 may be **wireless**, working for example as is illustrated by FIGS. 8 and 9. It will also be...at a fixed position within an area), or to a host computer 64 via a **cellular** link 38 or the like (FIGS. 10 & 11...

...motherboard (such as an EPSON(R) CARDIO), a GPS 8-channel receiver (such as a **MOTOROLA** (R) ONCORE), a spread spectrum radio or **wireless** modem or the like (such as the NORAND(R) FALCON) antenna 46!, a removable mass ...

...A variety of data collection peripherals may be tethered or **wirelessly** operatively connected to the terminal 10, for example a scanner 26, a keyboard 48, or...that is mounted on the headset, controlled by the processor, and directly connects to a **cellular** phone chip set 142. The microphone in turn connects to a limited vocabulary speech recognition... or speaker mounted in the headset and being processor controlled and directly connected to the **cellular** phone chip set 148. The terminal control processor connects to a communication controller unit 156 which in turn connects to the **cellular** chip set and support circuitry 158 which connects to a headset mounted antenna system 166...

...Referring now to FIG. 11, a diagrammatic illustration of an exemplary network schema utilizing a **cellular** communication link is shown. As can be seen from FIG. 11, the schema 168 comprises a terminal device 170 communicating with a **cellular** base station 172 over a **cellular** phone link. The **cellular** base station in turn communicates with distributor sites 174 and 176...of the data in the scanned field. Several standard phrases may be stored in an **electronic** storage medium, and custom voice phrases may be entered and saved into the data terminalFlash memory is

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the preferred **electronic** storage medium because of its nonvolatility. New program code may be downloaded into the flash...mounted on a rotating shaft assembly. A steel wire spring system comprising clock hairspring or **piano** type wire is securely attached to the rotating shaft assembly at a first end and...

...given inductance value coupled with a capacitor to form a resonant LC tank circuit. The **electronic** resonance of the LC tank circuit is coupled to and designed to match the resonance...color display and providing multicolored-screen writing capability. The stylus may be tethered to an **electronic** data system such as a data terminal or may be self contained and transmit dataA passive stylus system provides self-contained battery powered **electronics** which may communicate its position to a receiving grid overlay on the display. Color information...

3/3,K/49 (Item 16 from file: 654)

DIALOG(R)File 654:US Pat.Full.

(c) Format only 2003 The Dialog Corp. All rts. reserv.

4033670 **IMAGE Available

Derwent Accession: 1998-495320

Utility

E/ Addressing multiple removable memory modules by remapping slot addresses
; COMPUTER SYSTEM

Inventor: Combs, James Lee, Cary, NC

Rodriguez, Herman, Boca Raton, FL

Strothmann, James Alan, Lexington, KY

Thomas, James Randall, Boca Raton, FL

Assignee: International Business Machines Corporation (02), Armonk, NY

International Business Machines Corp (Code: 42640)

Examiner: Chan, Eddie P. (Art Unit: 271)

Assistant Examiner: Verbrugge, Kevin

Law Firm: Calfee Halter & Griswold

| | Publication Number | Kind | Date | Application Number | Filing Date |
|--------------|-----------------------|------|----------|-----------------------|----------------|
| Main Patent | US 5802544 | A | 19980901 | US 97921720 | 19970829 |
| Continuation | Abandoned | | | US 95478923 | 19950607 |

Fulltext Word Count: 13582

Description of the Invention:

...The Audio/Video controller/coprocessor (A/V controller/coprocessor) 32 **electronics** are largely contained within one massive custom logic chip known as an ASIC (Application Specific...52 is a CXA1145, manufactured by Sony Corp. In the alternative, an MC1377, manufactured by **Motorola** Corp. can be used...

...100a, 100b and is made of ABS-T (acrylonitrile-butadiene-styrene; available from Wong's **Electronics** Co. LTD., Wongs Industrial Centre, 180 Wai Yip Street, Kwun Tong, Kowloon, Hong Kong, as...

...art of "notebook" computer design, or can be any other suitable hinge such as a " **piano** " hinge affixed to the halves 100a, 100b by standard methods. In this embodiment, the hinge...959 to Ito et al. One suitable sensor 102 can be purchased from Wong's **Electronics** Co. LTD., Wongs Industrial Centre, 180 Wai Yip Street, Kwun Tong, Kowloon, Hong Kong, as ...

3/3,K/50 (Item 17 from file: 654)

DIALOG(R) File 654:US Pat.Full.

(c) Format only 2003 The Dialog Corp. All rts. reserv.

3976196 **IMAGE Available

Derwent Accession: 1998-285862

Utility

EXPIRED

E/ Digital tone synthesis modeling for complex instruments

Inventor: Kniest, James, Edmonds, WA

Petersen, Jay Dee, Seattle, WA

Assignee: Kniest, James N. (04), Edmonds, WA

Kniest James N

Examiner: Sircus, Brian (Art Unit: 217)

Assistant Examiner: Fletcher, Marlon T.

Combined Principal Attorneys: Dwyer, Patrick M.

| | Publication Number | Kind | Date | Application Number | Filing Date |
|-------------|-----------------------|------|----------|-----------------------|----------------|
| | ----- | -- | ----- | ----- | ----- |
| Main Patent | US 5747714 | A | 19980505 | US 95558362 | 19951116 |

Fulltext Word Count: 10170

Description of the Invention:

...Each DSP module board will preferably have four **Motorola** 56002 DSP processors with local 8 kX24 bit wide SRAM for each DSP, output for...

...concept of sympathetic notes goes much farther than merely depressing the damper pedal (or the **electronic** equivalent thereof) to sustain more notes than those with keys actually depressed. Sympathetic note setups...

...and parsing MIDI commands from the MIDI keyboard 50 and pedals 70 through the MIDI **electronics** 80. Once the necessary information for a particular note has been determined from the MIDI...The key signal 111 can be the musical note value of a depressed **piano** key, and the key signal dynamics 112 can be the envelope and/or dynamic information...

...or are other wise undamped (such as for instance the corresponding upper notes on a **piano** keyboard which are always physically undamped). With this set up then, it becomes even more...Conventional **piano** module outputs have, among other limitations, to process simultaneously (and usually through a single DSP...

...instantaneous note output of the module. With an instrument having the dynamic range of a **piano**, this creates limitations in headroom and dynamic range processing that severely detract from the verisimilitude of the note playback. To achieve improvement over conventional **piano** module outputs, in the invention no more than 6 preassigned notes are output to any...

...about 22.7 [mu]S. The preferred apparatus sustains all 88 notes of a full **piano** keyboard simultaneously so that during any sample period duration, all 88 notes are able to...followed by note data A1(f) 504, all of which are digital samples of forte **piano** notes. Note data A0(p) 503, elsewhere in RAM 312 is one of many digital samples of **piano piano** notes...

Search Report from Ginger R. DeMille

3/3,K/51 (Item 18 from file: 654)

DIALOG(R) File 654:US Pat.Full.

(c) Format only 2003 The Dialog Corp. All rts. reserv.

3902076 **IMAGE Available

Derwent Accession: 1995-322186

Utility

M/ Keyboard touchpad combination in a bivalve enclosure

; INPUT DEVICE FOR USE WITH A COMPUTER SYSTEM

Inventor: Bertram, Randal Lee, Lexington, KY

Combs, James Lee, Lexington, KY

Capaci, Gerald Joseph, Lexington, KY

Assignee: International Business Machines Corporation (02), Armonk, NY

International Business Machines Corp (Code: 42640)

Examiner: Harrison, Jessica (Art Unit: 334)

Assistant Examiner: Schaaf, James

Law Firm: Calfee, Halter & Griswold

Combined Principal Attorneys: McConnell, Daniel

| | Publication Number | Kind | Date | Application Number | Filing Date |
|-------------|-----------------------|------|----------|-----------------------|----------------|
| Main Patent | US 5681220 | A | 19971028 | US 94215033 | 19940618 |

Fulltext Word Count: 11024

Description of the Invention:

...preferred embodiment, the I/O coprocessor 36 is a preprogrammed MC68HC705C8 (hereinafter "68HC705"), manufactured by **Motorola** Corp, running at 2 MHz. The 68HC705 I/O coprocessor 36 is interfaced to the... The Audio/Video controller/coprocessor (A/V controller/ coprocessor) 32 **electronics** are largely contained within one massive custom logic chip, known as an ASIC (Application Specific...52 is a CXA1145, manufactured by Sony Corp. In the alternative, an MC1377, manufactured by **Motorola** Corp. can be used...100a, 100b and is made of ABS-T (acrylonitrile-butadiene-styrene; available from Wong's **Electronics** Co. LTD., Wongs Industrial Centre, 180 Wai Yip Street, Kwun Tong, Kowloon, Hong Kong, as...

...art of "notebook" computer design, or can be any other suitable hinge such as a " **piano** " hinge affixed to the halves 100a, 100b by standard methods. In this embodiment, the hinge...959 to Ito et al. One suitable sensor 102 can be purchased from Wong's **Electronics** Co. LTD., Wongs Industrial Centre, 180 Wai Yip Street, Kwun Tong, Kowloon, Hong Kong, as ...

3/3,K/52 (Item 19 from file: 654)

DIALOG(R) File 654:US Pat.Full.

(c) Format only 2003 The Dialog Corp. All rts. reserv.

3824807 **IMAGE Available

Derwent Accession: 1997-178590

LitAlert Accession: P1998-39-04 **See File 670 for Litigation

Utility

CERTIFICATE OF CORRECTION

E/ Interactive television graphics interface

Inventor: Berman, John L., 485 Quincy Ave., Mountain View, CA, 94043

Assignee: Unassigned

Search Report from Ginger R. DeMille

Unassigned Or Assigned To Individual (Code: 68000)
 Examiner: Kostak, Victor R. (Art Unit: 262)
 Law Firm: Robert Platt Bell & Associates, P.C.

| | Publication Number | Kind | Date | Application Number | Filing Date |
|-------------|-----------------------|------|----------|-----------------------|----------------|
| Main Patent | US 5610665 | A | 19970311 | US 94360625 | 19941221 |
| CIP | Pending | | | US 93136562 | 19931012 |

Fulltext Word Count: 7515

Description of the Invention:

...enable very young children to control the functions of the invention. For example, a xylophone, **piano**, or alphabetic keyboard input device may be used with teaching videos for children. Such an...

...102 with a simple cable, or may be provided with infrared, ultrasonic, RF or other **wireless** link...

...1) scan an **electronic** library of overlay images and to select a particular overlay image...94 may be accomplished by means of a phase-lock unit 2 such as a **Motorola** MC1378. Application notes provided with the **Motorola** MC1378 provide detailed schematics for one skilled in the art to implement a working device...

3/3,K/53 (Item 20 from file: 654)

DIALOG(R) File 654:US Pat.Full.

(c) Format only 2003 The Dialog Corp. All rts. reserv.

3810843 **IMAGE Available

Derwent Accession: 1997-108199

Utility

EXPIRED

M/ **Marine personnel rescue system and apparatus**

Inventor: Woodland, Richard L. K., 581 Broadway St., Victoria, British Columbia, CA

Assignee: Unassigned

Unassigned Or Assigned To Individual (Code: 68000)

Examiner: Avila, Stephen (Art Unit: 312)

Combined Principal Attorneys: Bullock, Roddy M.

| | Publication Number | Kind | Date | Application Number | Filing Date |
|-------------|-----------------------|------|----------|-----------------------|----------------|
| Main Patent | US 5597335 | A | 19970128 | US 95544460 | 19951018 |

Fulltext Word Count: 11487

Description of the Invention:

...wings 50 are fastened to the rigid hull 34 by a pair of stainless steel **piano** hinge means 51 drilled with countersunk holes on three inch centers throughout the length of the **piano** hinges means 51 and fastened with PEM bolts means 52 inserted into embedded PEM Nuts...

...of the rigid hull wing seats means 55, as shown in FIG. 18. The stainless **piano** hinge means 51 incorporate **piano** hinge seal means 215 preferably made of Hypalon rubberized fabric covers laminated to the

Search Report from Ginger R. DeMille

rigid...disposed in the rigid hull 34 in FIG. 21, comprised of a CPU computer and **electronics** module 118, an ARGOS satellite one way store-transmit data telemetry card 119, typical of...

- ...way RF radio data and voice transceiver communications card 123, typical of those manufactured by **Motorola** ; a radar card 124, typical of those manufactured by Titan Radar Systems; a sub-surface...
- ...The CPU computer and **electronics** module 118 is electrically connected to the AMV apparatus 3.0 electrical system 3G which...
- ...to 24-volt regulated direct current charge of electricity to the various vehicle electrical and **electronic** systems...
- ...The CPU computer and **electronics** module 118 is responsible for processing dynamic or proprogrammed instructions to effect actuation or termination...
- ...air compressor means 138, is also capable of being directed by the CPU computer and **electronics** module 118 to respond to signals received from a low pressure activation sensor, typical of...
- ...embodiments contemplated is the auxiliary system 3H can be directed by the CPU computer and **electronics** module 118 to respond to various vehicle system sensors means such as water temperature, which...means 6; and a directional control pad such as the URC-100 manufactured by ACR **Electronics** 7. The mounting and hook up of the elements of the targeting and sensor array...
- ...console assembly includes a ruggedized aircraft, ship, submarine, oil rig or ground-installed computer and **electronics** main casing means 1 with LCD or CRT graphic user interface visual displays means 2...
- ...viewing of raw or processed data which is channeled through the expert system CPU and **electronics** processing hardware and software means 3 to display video images and other data transmitted from...

3/3,K/54 (Item 21 from file: 654)

DIALOG(R)File 654:US Pat.Full:

(c) Format only 2003 The Dialog Corp. All rts. reserv.

3778814 **IMAGE Available

Derwent Accession: 1996-485086

Utility

REASSIGNED

E/ Method and apparatus for optically sensing the position and velocity of piano keys

Inventor: Kimble, Thomas E., Cincinnati, OH

Wade, David R., Cincinnati, OH

Assignee: Baldwin Piano and Organ Company (02), Loveland, OH

Baldwin Piano and Organ Co (Code: 07280)

Examiner: Witkowski, Stanley J. (Art Unit: 217)

Law Firm: Frost & Jacobs

| | Publication Number | Kind | Date | Application Number | Filing Date |
|-------------|-----------------------|------|----------|-----------------------|----------------|
| | ----- | -- | ----- | ----- | ----- |
| Main Patent | US 5567902 | A | 19961022 | US 95369882 | 19950106 |

Search Report from Ginger R. DeMille

Fulltext Word Count: 8078

Description of the Invention:

- ...along a light path 34 until it impacts against the bottom surface 40 of a **piano** key 38. The light that reflects off of the bottom surface 40 then follows a...
- ...41 and the fulcrum (or balance) rail 43, so as to be placed beneath the **piano** keys 38. The other mechanical features of the keyboard instrument would remain the same, including...10 of twelve input sensors 28 each, which cover all 88 keys of a normal **piano** 's range (see FIG. 4). Since it is desirable to scan each of these 88...one related to the C# key's position of one of the octaves of the **electronic** keyboard instrument...
- ...all of the octaves of a particular note (e.g., C-sharp) of the entire **electronic** keyboard instrument before deactivating that particular strobe bus line. Subsequently, microprocessor system 52 would activate... Microprocessor system 52 is preferably based upon a **Motorola** 68008 microprocessor, having separate ROM and RAM. Multiplexer 51 is preferably made up of two...
- ...It is preferred that all of the keys of the **electronic** keyboard instrument be scanned within each 2 millisecond (msec) time interval during the operation of the keyboard. If the **electronic** keyboard instrument is a **piano** having 88 keys, then a scan time of 22.7 [mu]sec will provide this...
- ...is the base requirement for converting the analog data for a given key of the **electronic** keyboard instrument, it can be easily seen that the preferred A/D converter provides much...
- ...Once the microprocessor system has obtained the data from each of the keys of the **electronic** keyboard instrument, it then passes the necessary information to have the corresponding tones generated by...
- ...to the force by which key 38 is being depressed by the user of the **electronic** keyboard instrument. The voltage magnitude is at a minimum when the key

3/3,K/55 (Item 22 from file: 654)

DIALOG(R)File 654:US Pat.Full.

(c) Format only 2003 The Dialog Corp. All rts. reserv.

3773852 **IMAGE Available

Derwent Accession: 1996-464253

Utility

E/ Music training apparatus

; FOR TEACHING A STUDENT CORRECT PITCH AND OTHER MUSICAL SKILLS

Inventor: Zimmerman, Thomas G., 72A W. Wyoming Ave., #3, Melrose, MA, 02176

Assignee: Unassigned

Unassigned Or Assigned To Individual (Code: 68000)

Examiner: Stanzone, Patrick J. (Art Unit: 212)

Law Firm: Haynes & Davis

| | Publication Number | Kind | Date | Application Number | Filing Date |
|-------------|-----------------------|------|----------|-----------------------|----------------|
| | ----- | -- | ----- | ----- | ----- |
| Main Patent | US 5563358 | A | 19961008 | US 94198254 | 19940218 |
| CIP | US 5287789 | A | | US 91803035 | 19911206 |

Fulltext Word Count: 14241

Description of the Invention:

...may be replaced with a portable display (e.g. a liquid crystal) and appropriate control **electronics** to make a compact, battery powered, portable version of the invention...

...accompaniment channel which contains verbal instructions for the student and musical accompaniment (e.g. a **piano**) and b) the monophonic reference channel which contains intonations of the vocal instructor and encoded...12 is set forth in FIG. 2. A microcontroller unit 50 (MCU) (68HC11-Family Microcontroller, **Motorola** Inc. Microcontroller Division Austin, Tex. 78735) is used to perform much of the control functions...

...implementation of the invention 10, it is not required and may be replaced with other **electronic** circuitry or software. For simplicity, however, the invention will be described using the MCU 50...

3/3,K/56 (Item 23 from file: 654)

DIALOG(R)File 654:US Pat.Full.

(c) Format only 2003 The Dialog Corp. All rts. reserv.

3705603 **IMAGE Available

Derwent Accession: 1995-293276

Utility

M/ **Just intonation tuning**

; APPARATUS FOR ADJUSTING THE TUNING OF A MUSICAL DEVICE

Inventor: Gannon, J. William, Vancouver, CA

Weyler, Rex A., Manson's Landing, CA

Assignee: Musig Tuning Corporation (03), Vancouver, CA

Musig Tuning Corp CA

Examiner: Stanzone, Patrick J. (Art Unit: 212)

Law Firm: Graybeal Jackson Haley & Johnson

| | Publication Number | Kind | Date | Application Number | Filing Date |
|-------------|-----------------------|------|----------|-----------------------|----------------|
| | ----- | -- | ---- | ----- | ----- |
| Main Patent | US 5501130 | A | 19960326 | US 94194245 | 19940210 |

Fulltext Word Count: 7601

Summary of the Invention:

...seventeenth century to overcome mechanical difficulties in changing keys in fixed tone instruments like the **piano** , and fretted instruments like the guitar. In music dominated by the equally tempered intervals of the **piano** and guitar, pure harmonies are lost...

...played, for example a violin. But fixed-tone instruments like the organ, clavichord, harpsichord and **piano** had to be altered or tempered in order to play in more than one key...U.S. Pat. No. 3,821,460 to **Motorola** Inc. discloses an **electronic** keyboard capable of being tuned to equal temperament and just intonation, using programmable frequency dividers...

... **Electronic** keyboard manufacturers began introducing various microtuning features in 1985 using logarithmic cents as a micro...

...U.S. Pat. No. 4,152,964 to Waage discloses an **electronic** system to

Search Report from Ginger R. DeMille

approximate just intonation by retaining "the tempered fourths and fifths," and shifting "the...

...U.S. Pat. No. 4,498,363 to Shimada disclosed a "just intonation **electronic** keyboard instrument". The keyboard comprised "a plurality of tonality selection switches for selecting each key

3/3,K/57 (Item 24 from file: 654)

DIALOG(R) File 654:US Pat.Full.

(c) Format only 2003 The Dialog Corp. All rts. reserv.

3691144 **IMAGE Available

Derwent Accession: 1996-105285

Utility

EXPIRED, REINSTATED

E/ Electronic musical re-performance and editing system

Inventor: Zimmerman, Thomas G., 7611 Hollanderry Pl., Cupertino, CA, 95014
Wantman, Samuel P., 1124 Page St. Apt. #3, San Francisco, CA, 94117

Assignee: Unassigned

Unassigned Or Assigned To Individual (Code: 68000)

Examiner: Witkowski, Stanley J. (Art Unit: 217)

| | Publication Number | Kind | Date | Application Number | Filing Date |
|-------------|-----------------------|------|----------|-----------------------|----------------|
| | ----- | -- | ---- | ----- | ----- |
| Main Patent | US 5488196 | A | 19960130 | US 94183489 | 19940119 |

Fulltext Word Count: 17323

Description of the Invention:

...Canton, Mass.) as ECCOSHIELD (R) CLV (resistivity less than 10 ohm-cm), or by Interlink **Electronics** (Santa Barbara, Calif.). Use of a string 240 as part of the finger transducer 64...For blown instruments the preferred finger transducers 58 are switches (not shown) which are **electronically** OR'ed together, so that a finger gesture 96 is produced whenever any switch is...

...for they can measure finger contact and pressure. A force sensing resistor, manufactured by Interlink **Electronics**, is a semiconductive polymer deposit sandwiched between two insulator sheets, one of which includes conductive...sound board (not shown) of the string controller 236. An optical interrupter 280 (e.g. **Motorola** H21A1) is placed near the lower block 274, such that the string 240 at rest...shown) to allow previously recorded bow motions to be played back, much like a player **piano**. An alternate embodiment uses a motor as a brake, providing resistance to bow movement, simulating...

...FIG. 13 show a schematic of an **electronic** circuit to perform all the signal processing necessary to implement a controller 6 using the...

...performed in software in the microcomputer 302 (MCU) to minimize hardware. A 68HC11 manufactured by **Motorola** is used as the MCU 302 in the preferred embodiment since it is highly integrated...

...as RAM, ROM, interrupt controllers, and timers. Alternate embodiments of the signal processing using simple **electronic** circuits are presented, eliminating the need for the MCU 302, and providing an inexpensive means

...

3/3,K/58 (Item 25 from file: 654)

DIALOG(R)File 654:US Pat.Full.

(c) Format only 2003 The Dialog Corp. All rts. reserv.

3490225 **IMAGE Available

Derwent Accession: 1994-135063

Utility

E/ Integrated multi-media production and authoring system

Inventor: MacKay, Michael T., Vallejo, CA

Assignee: Sony Electronics, Inc. (02), Park Ridge, NJ

Sony Electronics Inc (Code: 34988)

Examiner: Herndon, Heather R. (Art Unit: 231)

Assistant Examiner: Burraston, N. Kenneth

Combined Principal Attorneys: Blatt, Jeffrey J.

| | Publication Number | Kind | Date | Application Number | Filing Date |
|-------------|-----------------------|------|----------|-----------------------|----------------|
| Main Patent | US 5307456 | A | 19940426 | US 92827009 | 19920128 |
| CIP | Abandoned | | | US 91661694 | 19910227 |
| CIP | Pending | | | US 90622821 | 19901204 |

Disclaimer Date: 20090915

Fulltext Word Count: 18941

Description of the Invention:

...applications require a minimum repetitive access to the AV LAN network, and a guaranteed minimum **bandwidth** between two channels...MIDI or similar interface. The audio systems network would then be capable of controlling standardized **electronic** musical instruments. As shown, the audio systems network is further coupled to the MIS system...

...the scene depicted with the actor 110 and background 120, a musician such as an **electronic** synthesizer/ **piano** musician 122 may view the combined scene created using the teachings of FIG. 6 while...

...systems 190 are provided within the graphics systems network such that various graphics may be **electronically** stored in a database, and accessed by other systems coupled to the graphics systems network... multi-media production resources, the AV LAN can be used to control just about any **electronic** device that can be connected a computer network. Parameters such as temperature, lighting levels, ambient...

...with the intelligent studio network (See FIG. 3). These external communications may range from various **electronic** mail services over a phone line, to high definition video signal transmission over a fiber... In the presently preferred embodiment, the microprocessor 726 comprises a **Motorola** MC680x0 microprocessor. In addition, as illustrated in FIG. 20, microprocessor 726 is coupled using a...

3/3,K/59 (Item 26 from file: 654)

DIALOG(R)File 654:US Pat.Full.

(c) Format only 2003 The Dialog Corp. All rts. reserv.

3468722 **IMAGE Available

Derwent Accession: 1994-064434

Search Report from Ginger R. DeMille

Utility
EXPIRED

M/ Music training apparatus
; FOR TEACHING A STUDENT CORRECT PITCH

Inventor: Zimmerman, Thomas G., 218-15 Hartland Ave., Flushing, NY, 11364

Assignee: Unassigned

Unassigned Or Assigned To Individual (Code: 68000)

Examiner: Gellner, Michael L. (Art Unit: 211)

Assistant Examiner: Stanzione, P.

| | Publication Number | Kind | Date | Application Number | Filing Date |
|-------------|-----------------------|------|----------|-----------------------|----------------|
| Main Patent | US 5287789 | A | 19940222 | US 91803035 | 19911206 |

Fulltext Word Count: 12678

Description of the Invention:

...may be replaced with a portable display (e.g., a liquid crystal) and appropriate control **electronics** to make a compact, battery powered, portable version of the invention...

...accompaniment channel which contains verbal instructions for the student and musical accompaniment (e.g., a **piano**) and b) the monophonic reference channel which contains intonations of the vocal instructor and encoded...12 is set forth in FIG. 2. A microcontroller unit 50 (MCU) (68HC11-Family Microcontroller, **Motorola** Inc. Microcontroller Division, Austin, Tex. 78735) is used to perform much of the control functions...

...implementation of the invention 10, it is not required and may be replaced with other **electronic** circuitry or software. For simplicity, however, the invention will be described using the microcontrol unit...

3/3,K/60 (Item 27 from file: 654)

DIALOG(R) File 654:US Pat.Full.

(c) Format only 2003 The Dialog Corp. All rts. reserv.

3278067 **IMAGE Available

Derwent Accession: 1992-198997

Utility
EXPIRED

M/ Modular electronic keyboard with improved signal generation

Inventor: Monte, Charles, 10 Brodea Way, San Rafael, CA, 94901

White, Paul J., 3441 Beethaven St., Los Angeles, CA, 90066

Graham, Anne C., 3701 Meier St., Los Angeles, CA, 90066

Assignee: Unassigned

Unassigned Or Assigned To Individual (Code: 68000)

Examiner: Witkowski, Stanley J. (Art Unit: 217)

Combined Principal Attorneys: Eakin, James E.

| | Publication Number | Kind | Date | Application Number | Filing Date |
|-------------|-----------------------|------|----------|-----------------------|----------------|
| Main Patent | US 5115705 | A | 19920526 | US 90600693 | 19901022 |
| Division | US 5003859 | A | | US 89311601 | 19890216 |

Fulltext Word Count: 17368

Search Report from Ginger R. DeMille

Description of the Invention:

...As seen in FIG. 1, an improved percussive action **electronic** keyboard 10 includes a mounting base or substrate 15 to which a front panel 15a...

...The keyboard 10 is connected to one or more **electronic** music generation devices 11, 11a via suitable connecting cables 13, 13a which plug into a...

...musical instrument digital interface (MIDI) connection, to be established between the keyboard 10 and the **electronic** music sound generation devices 11 and 11a...

...In the keyboard 10 shown in FIG. 1, eighty eight grand- **piano** -scaled wooden white keys 24, and black keys 26 are provided in conventional keyboard arrangement...primary power. A rocker switch 46 enables the user to apply primary power to the **electronics** circuitry within the keyboard 10. A fuse 48 protects the circuitry from overload. A switch...flanges at the four station point) provide a keyboard having 88 keys in conventional acoustic **piano** arrangement. The hammer flanges 158 are preferably molded of a suitable plastic material, such as...keyboard 10. The power supply converts line current into low voltage DC required for the **electronic** control circuitry 230...The microprocessor-based **electronic** control system 230 for controlling functionality of the keyboard 10 is set forth structurally in...The microprocessor controller circuit (FIGS. 27A and 27AA) is predicated upon a **Motorola** 68809E microprocessor (U126) operating at a clock cycle rate of 8 MHz generated by a...

3/3,K/61 (Item 28 from file: 654)

DIALOG(R)File 654:US Pat.Full.

(c) Format only 2003 The Dialog Corp. All rts. reserv.

3232604 **IMAGE Available

Derwent Accession: 1991-252773

Utility

M/ **Multiple key electronic instrument having background songs each associated with solo parts which are synchronized with and harmonious with the background song**

Inventor: Capps, Stephen P., Sunnyvale, CA

DuFlon, Raymond H., Woodside, CA

Bogas, Edgar N., San Francisco, CA

Assignee: Noise Toys, Inc. (02), Woodside, CA

Noise Toys Inc

Examiner: Shoop, Jr., William M. (Art Unit: 217)

Assistant Examiner: Kim, Helen

Law Firm: Blakely, Sokoloff, Taylor & Zafman

| | Publication Number | Kind | Date | Application Number | Filing Date |
|-------------|-----------------------|------|----------|-----------------------|----------------|
| Main Patent | US 5074182 | A | 19911224 | US 90469095 | 19900123 |

Fulltext Word Count: 11941

Description of the Invention:

...in accordance with one embodiment of the present invention. A central processor 15 such as **Motorola** 68020 is connected to data and address buses 16, 17 and is connected to receive...recorded pitch. A "25" means play the note at its recorded pitch. For example, a **piano** playing

Search Report from Ginger R. DeMille

a middle C is digitized and stored. If **piano** is the current instrument on this track and the pitch is 13, the note sounded...with different envelopes, vibratos, etc. For instance, one common use is to have, say, a **piano** instrument structure and a quiet **piano** instrument structure. They both share the same waveform (so they'll have the same pointer... Therefore, the **electronic** musical instrument of the present invention facilitates creative variations of background songs in response to...

3/3,K/62 (Item 29 from file: 654)-

DIALOG(R)File 654:US Pat.Full.

(c) Format only 2003 The Dialog Corp. All rts. reserv.

3155272 **IMAGE Available

Derwent Accession: 1991-116574

Utility

EXPIRED

M/ Percussive action modular electronic keyboard

Inventor: Monte, Charles, 8519 Woodley Ave., Sepulveda, CA, 91343

White, Paul J., Los Angeles, CA

Graham, Anne C., Los Angeles, CA

Assignee: Monte, Charles (04), Van Nuys, CA

Monte Charles

Examiner: Witkowski, Stanley J. (Art Unit: 214)

| | Publication Number | Kind | Date | Application Number | Filing Date |
|-------------|-----------------------|------|----------|-----------------------|----------------|
| | ----- | -- | ----- | ----- | ----- |
| Main Patent | US 5003859 | A | 19910402 | US 89311601 | 19890216 |

Fulltext Word Count: 16690

Description of the Invention:

...As seen in FIG. 1, an improved percussive action **electronic** keyboard 10 includes a mounting base or substrate 15 to which a front panel 15a...

...The keyboard 10 is connected to one or more **electronic** music generation devices 11, 11a via suitable connecting cables 13, 13a which plug into a...

...musical instrument digital interface (MIDI) connection, to be established between the keyboard 10 and the **electronic** music sound generation devices 11 and 11a...

...In the keyboard 10 shown in FIG. 1, eighty eight grand- **piano** -scaled wooden white keys 24, and black keys 26 are provided in conventional keyboard arrangement...primary power. A rocker switch 46 enables the user to apply primary power to the **electronics** circuitry within the keyboard 10. A fuse 48 protects the circuitry from overload. A switch...flanges at the four station point) provide a keyboard having 88 keys in conventional acoustic **piano** arrangement. The hammer flanges 158 are preferably molded of a suitable plastic material, such as...keyboard 10. The power supply converts line current into low voltage DC required for the **electronic** control circuitry 230...The microprocessor-based **electronic** control system 230 for controlling functionality of the keyboard 10 is set forth structurally in...The microprocessor controller circuit (FIGS. 27A and 27AA) is predicated upon a **Motorola** 68809E microprocessor (U126) operating at a clock cycle rate of 8 MHz generated by a...

Search Report from Ginger R. DeMille

3/3,K/63 (Item 30 from file: 654)

DIALOG(R)File 654:US Pat.Full.

(c) Format only 2003 The Dialog Corp. All rts. reserv.

2984314 **IMAGE Available

Derwent Accession: 1989-255960

Utility

EXPIRED

E/ Current measuring apparatus

Inventor: Gilker, Clyde, Milwaukee, WI

Dunk, Michael P., Racine, WI

Dolnik, Thomas G., Kenosha, WI

Daharsh, Ross S., S. Milwaukee, WI

Berezinski, Mark A., Cudahy, WI

Assignee: Tennessee Valley Public Power Association (02), Chattanooga, TN

TENNESSEE VALLEY PUBLIC POWER ASSOCIATION

Examiner: Lall, Parshotam S. (Art Unit: 234)

Assistant Examiner: Teska, Kevin J.

Law Firm: Haight & Hofeldt

| | Publication Number | Kind | Date | Application Number | Filing Date |
|-------------|-----------------------|------|----------|-----------------------|----------------|
| | ----- | -- | ----- | ----- | ----- |
| Main Patent | US 4847780 | A | 19890711 | US 8787703 | 19870821 |

Fulltext Word Count: 10019

Description of the Invention:

...core parts are connected together by a hinge 34. Preferably, this hinge is of the **piano** -type, in that it will keep the two parts from moving out of alignment with... **Electronic** Circuitry (First Embodiment ...FIG. 5, one embodiment of a Current Encoder and Transmitter 70 is schematically depicted. This **electronic** assembly 70 may be carried by the two-part current transformer of FIG's. 2...set". This flip-flop IC11 is used to drive the interrupt of a microprocessor IC13 (**Motorola** 6805). The interrupt is selected to call a program or subroutine that obtains the time...

3/3,K/64 (Item 31 from file: 654)

DIALOG(R)File 654:US Pat.Full.

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2752793 **IMAGE Available

Derwent Accession: 1987-021559

Utility

REASSIGNED

C/ Pizza preparation and delivery system

; PREPARATION OF PIZZA IN VEHICLE EN ROUTE TO CUSTOMER; FRESHNESS, QUALITY

Inventor: Abbott, Maxwell T., Rose Hill, KS

Streepy, Gary S., Wichita, KS

Paulus, John R., Wichita, KS

Barrera, Ricardo, Rose Hill, KS

Brewer, David E., Wichita, KS

Assignee: Pizza Hut, Inc. (02), Wichita, KS

PIZZA HUT INC (Code: 08866)

Examiner: Reeves, Robert B. (Art Unit: 312)

Assistant Examiner: Pedder, Dennis H.

Search Report from Ginger R. DeMille

Law Firm: Willian Brinks Olds Hofer Gilson & Lione Ltd.

| | Publication Number | Kind | Date | Application Number | Filing Date |
|-------------|-----------------------|------|----------|-----------------------|----------------|
| | ----- | -- | ----- | ----- | ----- |
| Main Patent | US 4632836 | A | 19861230 | US 84599497 | 19840412 |

Fulltext Word Count: 8142

Description of the Invention:

...top surface 60 which comprises a first section 61, a second section 62 and a **piano** hinge 63 dividing the first and second sections. The cutting table 10 also has a by a **piano** hinge 73. Preferably, each of the first and second sections 71, 72 has an inner...radio is situated: A suitable mobile radio is the Motrar(TM) 5 Mobile Radio by **Motorola** Communications and **Electronics**, Inc., 1301 E. Algonquin Road, Schaumburg, Ill. 60196. For the home station, **Motorola** Communications and **Electronics**, Inc. also provides a Motrar(TM) 5 Trunked Mobile Flash Control Station Radio, equipped for...

3/3,K/65 (Item 32 from file: 654)

DIALOG(R) File 654:US Pat.Full.

(c) Format only 2003 The Dialog Corp. All rts. reserv.

2577035 **IMAGE Available

Derwent Accession: 1984-242979

Utility

EXPIRED

M/ Musical instrument

; ARRAY SWITCHING MECHANISM

Inventor: Barlow, Gordon A., Glenview, IL

Karlin, Richard A., Chicago, IL

Assignee: Gordon Barlow Design (02), Skokie, IL

GORDON BARLOW DESIGN

Examiner: Witkowski, Stanley J. (Art Unit: 217)

Law Firm: Kinzer, Plyer, Dorn & McEachran

| | Publication Number | Kind | Date | Application Number | Filing Date |
|-------------|-----------------------|------|----------|-----------------------|----------------|
| | ----- | -- | ----- | ----- | ----- |
| Main Patent | US 4470334 | A | 19840911 | US 82427824 | 19820929 |

Fulltext Word Count: 7311

Description of the Invention:

...positions are so double used, corresponding to eleven traditional instruments (xylophone, cello, mandolin, bass, guitar, **piano**, violin, harpsichord, organ, clarinet and banjo), three special effects, and two orchestra positions. Any of...

...analog convertor and forces an almost immediate attack to full amplitude (for example for a **piano** sound). A sixth output bit overrides the previous five bits and forces the function to...instrument is simulated by selecting appropriate behavior for the envelope control bits (thus for a **piano**, immediate full amplitude attack, and medium decay to zero), for the frequency control bits (for a **piano**, fixed frequency-no vibrato, etc.), and for the audio rate bits (modest timbre structure for the **piano**). Additionally, the frequency range is adjusted for the

Search Report from Ginger R. DeMille

instrument selected. Thus, the twenty-one note...

...audio by properly organizing the digital state machine. The requisite organization, an organization unique to **electronic** music devices, is to produce a portion of the time delay which corresponds to the...Transistor 84, a **Motorola** MPS2222, drives speaker 69 through external speaker jack plug 85 via connecting leads 87 and...
...85 disconnects speaker 69 and transfers the output to the external speaker. Transistor 91, a **Motorola** MPSA20, drives transistor 84. Resistor 93, 4700 ohms, acts as a base return for 84. Transistor 95, a **Motorola** MPSA70 PNP drives transistor 91 with 10 kilohm resistor 97 acting as an emitter load...time through, this code plays a little `song` in the voice of the first instrument (**piano**). The song is stored at the song table 919-921. After playing the song, this...

3/3,K/66 (Item 33 from file: 654)

DIALOG(R)File 654:US Pat.Full.

(c) Format only 2003 The Dialog Corp. All rts. reserv.

2460959 **IMAGE Available

Derwent Accession: 1982-H5769E

Utility

M/ **Piano action magnetic tape recording process and apparatus for player piano playback**

Inventor: Brush, Gary T., Sault Ste. Marie, CA

Assignee: Sounds Alive System, Inc. (02), Houghton Lake, MI

SOUNDS ALIVE SYSTEM INC

Examiner: Truhe, J. V. (Art Unit: 217)

Assistant Examiner: Isen, Forester W.

| | Publication Number | Kind | Date | Application Number | Filing Date |
|-------------|-----------------------|------|----------|-----------------------|----------------|
| | ----- | -- | ----- | ----- | ----- |
| Main Patent | US 4363255 | A | 19821214 | US 80147489 | 19800507 |

Fulltext Word Count: 7724

Description of the Invention:

...versed in the art will appreciate, the subject process could easily be applied to a **piano**, an organ, or various other musical instruments having numerous keys. For purposes of describing the...

...it will be assumed that the process applies to the instrument commonly known as a **piano** 1 having a keyboard 2 as illustrated in FIG. 1. It has non-musical applications...

...Each **piano** key 3 in keyboard 2 of the **piano** 1 has a first position in which the key 3 is normally biased to a raised position by a suitable mechanical device. When the **piano** 1 is played the key 3 is switched from the first position to a second...

...To practice the subject process, a key switch 10 is provided adjacent each of the **piano** keys 3. Each key 3 switch 10 may be an opto-interrupter saturated transistor switch, a suitable mechanical contact switch, or another suitable switch which can detect **piano** key movement from the first position to the second position without interfering with the **piano** action. For illustration purposes a second stage is illustrated to show how the keys 3...

Search Report from Ginger R. DeMille

- ...switches 10 may be mounted on a suitable frame 12 out of sight inside the **piano** so as to follow **piano** keyboard 2 action as the keys 3 are depressed and released...Tape decks generally have from one to four channels for recording. A conventional **piano** has 88 keys. Persons versed in the art will appreciate that 88 oscillators 14 can...
- ...provided preset to the frequency generated by one of the oscillators 14. Accordingly, in a **piano** there would be 88 of the decoders 34...
- ...physically strike the mechanism associated with a key so as to cause movement of the **piano** key, as shown in the drawing by relay 36 operatively connected to the keys 3...
- ...lines. In the alternative, persons versed in the art will appreciate that in a player **piano** a pneumatic mechanism exists in which a tracker bar is provided with an array of...10'" in FIG. 2 may be assumed to be an electric switch associated with an **electronic** organ key. Each of the switches 10 through 10'" connects one of the electromechanical devices... Semiconductor Components Group, Fairchild Camera and Instrument Corporation, 464 Ellis Street, Mountainview, Calif. 94042 and **Motorola** Semiconductor Products, Inc., Box 20912, Phoenix, Ariz. 85036. Several of these manufacturers also manufacture the...the art will appreciate that the subject apparatus may be used in combination with a **piano** or other instrument that does not generate a note simply by electrically grounding an electromechanical device 40. For a **piano** the switches 10 through 10'" could simply detect key movement...
- ...In a **piano** merely illuminating the light emitting diodes 48 through 48'" on playback would be a valuable...
- ...by showing which note sequence should be sounded as the student learns to play the **piano**. It is thus apparent that a library of prerecorded tapes may be used to illuminate...
- ...Of course, if it is desired to actually operate **piano** keys rather than merely indicate their sequence of prior operation, electromechanical devices 40 through 40'" may be relays that can be energized and mechanically connected to a **piano** key type device as shown in FIG. 1 to actually move the **piano** keys rather than simply indicate key operation by energizing light emitting diodes 48 through 48...
- ...and reproducing electric signals corresponding to key operation and for reproducing key operation of a **piano** or other musical instrument or for indicating a sequence of key operation...

3/3,K/67 (Item 34 from file: 654)

DIALOG(R)File 654:US Pat.Full.

(c) Format only 2003 The Dialog Corp. All rts. reserv.

2427139 **IMAGE Available

Derwent Accession: 1981-G8254D

Utility

EXPIRED

M/ Apparatus for transposing passages in electronic musical instruments

Inventor: Franz, Reinhard, Tulpenstrasse 15, D-5401 Emmelshausen, DE

Dittmar, Wilfried, Halsenbach, DE

Assignee: Franz, Reinhard (05), Emmelshausen, DE

FRANZ REINHARD DE

Search Report from Ginger R. DeMille

Examiner: Witkowski, Stanley J. (Art Unit: 217)
Law Firm: Kontler & Grimes

| | Publication Number | Kind | Date | Application Number | Filing Date |
|-------------|-----------------------|------|----------|-----------------------|----------------|
| Main Patent | US 4332182 | A | 19820601 | US 81222895 | 19810106 |
| Priority | | | | DE 3000704 | 19800110 |

Fulltext Word Count: 5616

Description of the Invention:

...either directly or through the medium of additional divider means or voice circuits, with the **electronic** musical instrument, e.g., with the tone generator of an **electronic piano**, an **electronic organ** or an **electronic accordion**. The average frequency of signals $f_{\text{sub}t}$ is 6 kHz. The twelve tones...address. The arrangement of FIG. 2 can serve to denote the basic tuning of the **electronic** musical instrument (e.g., an **electronic organ**). As a rule, the basic tuning is in c-dur...

...frequency signals $f_{\text{sub}t}$ which are supplied to the musical instrument, such as an **electronic organ** or an **electronic piano**.

...and sold by SGS ATES; the multiplexer 30 may constitute an integrated circuit produced by **Motorola**, National Semiconductor or RCA and offered for sale under order number 4067; the decoding circuit 45 may constitute an integrated circuit which is sold by RCA, National Semiconductor or **Motorola** and is offered under order number 4514; the storage 40 or the holding circuits 68, 69, 70 of the storage 67 may constitute integrated circuits sold by RCA, **Motorola** or National Semiconductor under order number 4042; and the analog switches 60, 61 and 62 may constitute integrated circuits sold by RCA, **Motorola** or National Semiconductor under order number 4016...

...An important advantage of the improved transposing apparatus is that it utilizes an **electronic** switching arrangement having several inputs each of which can receive an addressing signal, that the...

...loss in time so that such operation can be readily carried out while the respective **electronic** musical instrument is in actual use. Each key 35 or 80, i.e., each switch...

...the circuit which transmits or effects the transmission of signals $f_{\text{sub}t}$ to the **electronic** musical instrument proper. The storage means ensures that the player need not waste much time...

...of a keyboard (36 or 73) which is familiar to many or most players of **electronic** or mechanical musical instruments is desirable and advantageous because it further reduces the likelihood that...

...the octaves of the keyboard of a known musical instrument (such as an organ, a **piano** or an accordion) so that the player can become accustomed to manipulation of the keyboard...or normal functions (i.e., the same functions as the playing keys of a conventional **electronic** musical instrument of the type including pianos, organs, accordions or the like). Otherwise stated, the...

...71 whereupon the playing keys of one or more octaves on the keyboard of the **electronic** musical instrument can be used for selection of a desired transposition. Such embodiments are especially...

...or 80 may be to regulate the accompanying automaton and/or other components of an **electronic organ** or the like...

Search Report from Ginger R. DeMille

...When the keyboard 36 or 73 is the only keyboard of the respective **electronic** musical instrument, i.e., if the keys 35 or 80 are playing keys which perform main functions (such as actuating the accompanying means of the **electronic** musical instrument) plus secondary functions of selecting any one of several transpositions, that input of...a transposition signal, i.e., that the key corresponds to the basic tuning of the **electronic** musical instrument...

3/3,K/68 (Item 35 from file: 654)

DIALOG(R) File 654:US Pat.Full.

(c) Format only 2003 The Dialog Corp. All rts. reserv.

2415608 **IMAGE Available

Derwent Accession: 1982-E3671E

Utility

M/ **Automatic ear training apparatus**

Inventor: Tumblin, John E., Atlanta, GA

Assignee: Georgia Tech Research Institute (02), Atlanta, GA

GEORGIA TECH RESEARCH INSTITUTE THE (Code: 12423)

Examiner: Witkowski, S. J. (Art Unit: 217)

Law Firm: Newton, Hopkins & Ormsby

| | Publication Number | Kind | Date | Application Number | Filing Date |
|-------------|-----------------------|------|----------|-----------------------|----------------|
| | ----- | -- | ----- | ----- | ----- |
| Main Patent | US 4321853 | A | 19820330 | US 80173601 | 19800730 |

Fulltext Word Count: 4100

Description of the Invention:

...invention is set forth in FIG. 1. The diagram shows a microprocessor 12 (e.g., **Motorola** 6800-Family Microprocessor Hardware) as the control center of the system. Although the use of...

...The **piano** -type keyboard 14 represents a musical device connected directly to the music theory training system...

...The **electronic** metronome 28 and its display is a simple clock-counter arrangement whose tempo, or speed...

...and read on interface 30 by the controlling processor. As seen in FIG. 3, the **electronic** metronome 28 consists of a low-speed clock oscillator 32, digital counter 34, decoder/demultiplexer...amplifier 50, of FIG. 1, with the audible "tick" signal on output 46 from the **electronic** metronome 28 to form a signal to drive speaker 58 of the system...3) the pitch and rhythm of student exercises done on an instrument such as the **piano** -type keyboard 14 read directly by the controlling processor 12... devices and possible only with a trained music tutor, is achieved with the above-described **electronic** system...

3/3,K/69 (Item 36 from file: 654)

DIALOG(R) File 654:US Pat.Full.

(c) Format only 2003 The Dialog Corp. All rts. reserv.

2403596 **IMAGE Available

Derwent Accession: 1982-B0095E

Search Report from Ginger R. DeMille

Utility

E/ Point of sale terminal having prompting display and automatic money handling

Inventor: Azcua, Noris S., Huntington Beach, CA
 Margolin, George D., Newport Beach, CA
 Miller, Audrey, Claremont, CA
 Vurpillat, Victor V., Laguna Niguel, CA
 Assignee: Auto-Register, Inc. (02), Costa Mesa, CA
 AUTO REGISTER INC
 Examiner: Smith, Jerry (Art Unit: 236)
 Combined Principal Attorneys: Woronoff, David S.

| | Publication Number | Kind | Date | Application Number | Filing Date |
|-------------|-----------------------|------|----------|-----------------------|----------------|
| Main Patent | US 4310885 | A | 19820112 | US 78957914 | 19781106 |

Fulltext Word Count: 15997

Description of the Invention:

...FIGS. 1 and 3 illustrate housing 10 having an interior for containing electro-mechanical and **electronic** apparatus. An upper portion of the housing has an exterior face 11 with a keyboard...can be loaded into the prompting display housing in a manner similar to a player **piano** scroll...can be moved to and stopped in the viewing position for display. Logic and control **electronics** used in the servo system are physically contained on a printed circuit board 608 contained...

...Organization of **Electronic** Hardware ...reference to FIG. 10, there will now be generally described the overall organization of the **electronic** hardware contained in housing 10...

...360, an ACIA 362, a controller 364, a controller 366, and a multiplexer and control **electronics** 368. Each PIA is fully described in the above-identified **Motorola** manuals. Similiarly, the ACIA is fully described therein. PIA 358 provides an interface between data...

3/3,K/70 (Item 37 from file: 654)

DIALOG(R)File 654:US Pat.Full.

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2261721 **IMAGE Available

Derwent Accession: 1980-A1908C

Utility

REASSIGNED

M/ Musical synthesis envelope control techniques

Inventor: Alonso, Sydney A., Strafford, VT, 05072

Assignee: Unassigned

UNASSIGNED OR ASSIGNED TO INDIVIDUAL (Code: 68000)

Examiner: Miska, Vit W. (Art Unit: 217)

| | Publication Number | Kind | Date | Application Number | Filing Date |
|-------------|-----------------------|------|----------|-----------------------|----------------|
| Main Patent | US 4178822 | A | 19791218 | US 77804361 | 19770607 |

Fulltext Word Count: 4646

Search Report from Ginger R. DeMille

Description of the Invention:

...to FIG. 1, keyboard 1 includes keys representing each of the notes of a typical **piano** keyboard from C1 (32 Hz.) to C8 (4,096 Hz.). In order to simplify the...Note Oscillator" is illustrated in FIG. 3 of the application Ser. No. 804,363 entitled "**Electronic** Music Sampling Techniques", filed contemporaneously with this application in the name of Sydney Alonso...to-A converters is identical and may be implemented by Model No. MC1408 manufactured by **Motorola** Inc...

3/3,K/71 (Item 38 from file: 654)

DIALOG(R)File 654:US Pat.Full.

(c) Format only 2003 The Dialog Corp. All rts. reserv.

2229946 **IMAGE Available

Derwent Accession: 1977-J0065Y

Utility

M/ **Polyphonic computer organ**

Inventor: Deforeit, Christian J., 202, rue des Joncs Marins, 91620 La Ville du Bois, FR

Assignee: Unassigned

UNASSIGNED OR ASSIGNED TO INDIVIDUAL (Code: 68000)

Examiner: Schaefer, Robert K. (Art Unit: 217)

Assistant Examiner: Miska, Vit W.

Law Firm: Oblon, Fisher, Spivak, McClelland & Maier

| | Publication Number | Kind | Date | Application Number | Filing Date |
|-------------|-----------------------|------|----------|-----------------------|----------------|
| | ----- | -- | ----- | ----- | ----- |
| Main Patent | US 4149440 | A | 19790417 | US 77777445 | 19770314 |
| Priority | | | | FR 767419 | 19760316 |

Fulltext Word Count: 8504

Description of the Invention:

...is 2^{11/12}. A generator of this kind is commercially available, i.e., **MOTOROLA** Reference MK 50240 or SESCOSEM, reference SFF 5009. It can replace a set of 13...The keyboard can be of any suitable kind--e.g. similar to a **piano** keyboard as in an **electronic** organ, in which case each switch 154 is associated with and actuated by a key...

3/3,K/72 (Item 1 from file: 719)

DIALOG(R)File 719:(Albany) The Times Union

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10083128

MERCEDES' ROLLING OFFICE HAS EVERYTHING BUT A SHOWER

TIMES UNION (AL) - Wednesday, March 24, 1999

Edition: THREE STAR Section: LIFE & LEISURE Page: D8

Word Count: 673

...from development into commercial products, officials said.

One example, according to Hector Ruiz, president of **Motorola**'s Semiconductor Products division, is a **wireless** technique known inside the company as **Piano**, which can transmit information at speeds as high as 500 megabits a second over distances...

3/3,K/73 (Item 1 from file: 727)

DIALOG(R) File 727: Canadian Newspapers
(c) 2003 Southam Inc. All rts. reserv.

07013617 (USE FORMAT 7 FOR FULLTEXT)

Motorola research centre

Hamilton Spectator, FINAL ED, P F3

March 19, 1999

DOCUMENT TYPE: NEWSPAPER LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT

SECTION HEADING: Computers

Word Count: 153

One example, according to Hector Ruiz, president of **Motorola** 's Semiconductor Products division, is a **wireless** technique known inside the company as **Piano** , which can transmit information at speeds as high as 500 megabits a second over distances...

3/3,K/74 (Item 1 from file: 766)

DIALOG(R) File 766: (R) Kalorama Info Market Res.
(c) 2000 Kalorama Info Inc. All rts. reserv.

00156574

NEWSPAPERS ON THE INTERNET: Newspapers as Local Information Providers

Main Title: Local Information on the Net (1997)

Pub. Date: November, 1997

Source: FIND/SVP

Telephone: US (800) 346-3787; Other (212) 807-2657

Word Count: 3900 (7 pp.)

Language: English

Country: UNITED STATES

Industry: COMPUTERS AND ELECTRONICS, TELECOMMUNICATIONS

Company Names (DIALOG Generated): Action Marketing ; America Online ; Associated Press ; Atlanta Journal ; Austin Public Library ; Autovantage ; AT&T ; BayBank ; Bear Valley News ; Bed and Breakfast ; BellSouth ; Bill Mitchell ; Boston Globe/New York Times Co ; Business Resources ; BBN Planet ; Chronicle Publishing Co ; Civic Resources ; College Post ; Community College ; Community Resources ; Community Self Publishing Initiative ; Continental ; Convention and Visitors Bureau ; Cornish & Cary Real Estate ; CowDog Center ; Cox Interactive Media ; Cyrix Computer ; CBS ; CNN Interactive ; CVS ; Daily News ; Dell Computer ; Digital Ink Co ; Directory Center ; Do They Own Their Markets ; Eats ; Economy ; Education ; Emory Vision Correction ; Entertainment ; ETAK ; Fine Arts Resources ; Francisco Examiner ; General 's Danville Register ; Georgia Online ; Glendale News Press ; Global Network ; Greater Houston Partnership ; Guide ; Hearst Newspapers ; High School Sports ; Hollywood Online ; Houston Chronicle ; HCI ; Infinet ; InfoSource Directory ; Its School ; IBM Global Network ; ISP ; Jersey City Journal ; Jersey Journal ; K 12 Education ; Knight Ridder Newspapers ; Listening Post ; Local Papers ; Los Angeles Times ; LA Times Online ; Majesty Cruise Lines ; Media General ; Medical Resources ; Merc Center ; Mercury Center ; Mercury News ; Microsoft ; Morris & Roper Real ; Motorola ; MAADA ; MCI ; Neighborhood News ; Net Worth ; New Century Network ; New England Cable News ; New Jersey Online ; New Media News ; New York Times Co ; Newhouse/Advance Newspapers ; News ; Next

Search Report from Ginger R. DeMille

Ticketing ; NJO Center ; NYNEX ; Office of School Readiness ; Origins ; Our New Jersey Sports ; Pacific Bell ; Philadelphia Daily News ; Philadelphia Inquirer/Daily News ; Philadelphia Online ; Philadelphia Papers ; Pointcast ; Press Association ; Public Library ; Pulse Research ; Real Estate Resources Auto ; Religious Organizations ; Residential Real Estate ; Richmond Newspapers ; Richmond Times Dispatch ; Ricochet Modems ; San Francisco Chronicle ; San Francisco Examiner Hot News ; San Jose Mercury News ; Sanwa Bank ; School Newspapers ; Schools ; Seton ; Site Development ; Skyline ; Small Business Business ; Social Services ; Southwestern Bell ; Sports Clubs ; Studies ; Sybase ; Tampa Bay Tribune ; Teacher Tools ; Texas Monthly ; Texas Parks and Wildlife ; Times Dispatch ; Times Electronic Publishing ; Times Mirror ; Today 's Globe ; Top 100 Companies ; Toyota Camry ; Tracer ; University of Texas Horns ; USA Today Online ; Vanguard ; Virginia Business ; Virginia News Network ; Washington Post ; Washington Web Guide ; Yale Electric Utility

...New York Times Co. purchased the Globe, and it has stayed independent of The Times **Electronic** Publishing Co. In fact, Times management has said that when it provides its own local...confused with Texas Monthly. It also has newspaper archives dating back from October 1995, and **electronic** coupons--CouponLine.

HCI's Community section features a wide variety of listings, including Business Resources...a la carte basis.

The Los Angeles Times had earlier served as a pioneer in **electronic** information delivery with the launch of Viewtron, a TV-based delivery service developed at a...percentage of high-tech companies and auto companies. Recent advertisers include Sun Microsystems, Ricochet Modems, **Motorola** , NCA computer stores, Mercury Tracer, Toyota Camry, Cornish & Cary Real Estate, and Coldwell Banker. Several...Events, and Casinos. The section also has a number of special features. February features were **Piano** Bars, Live on E Street, Nights at Museums, Old City, and Where to Go and...

...Richmond, VA 23293

(804) 649-6966

www.gateway-va.com

Key Executives

Mike Steele, Editor, **electronic** publishing, Virginia Gateway Highlights

Virginia Gateway, "The New Online Service for the Old Dominion," is...

3/3,K/75 (Item 1 from file: 781)
DIALOG(R)File 781:ProQuest Newsstand
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04617466 DLHD235866 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Lake Briefs

Chicago Daily Herald
Wednesday, January 27, 1999

Search Report from Ginger R. DeMille

DOCUMENT TYPE: Newspaper, Large LANGUAGE: ENGLISH RECORD TYPE:
FULLTEXT
Word Count: 237

TEXT:

Motorola shines Sun on project

LIBERTYVILLE - **Motorola** Inc.'s Internet and Networking Group said Tuesday it plans to pair Sun's Jini technology with a newly developed **Motorola** networking software research and development project, code-named **Piano**. **Piano**'s goal is to make most **electronic** devices aware of other nearby **electronic** devices and be capable of **wirelessly** networking with them via a temporary, or "just-in-time," intranet. Jini is a Sun R&D project that expands the capabilities of Sun's Java technology. Separately, **Motorola** announced its Northbrook-based Automotive, Component, Computer and Energy Sector is realigning its overall strategy and organization to take advantage the growing embedded **electronic** solutions market. The sector's name is changing to the Integrated **Electronic** Systems Sector. Schaumburg-based **Motorola** has operations in Libertyville.

3/3,K/76 (Item 2 from file: 781)

DIALOG(R)File 781:ProQuest Newsstand
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04617427 DLHD235827 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Fox Valley Briefs

Chicago Daily Herald

Wednesday, January 27, 1999

DOCUMENT TYPE: Newspaper, Large LANGUAGE: ENGLISH RECORD TYPE:
FULLTEXT

Word Count: 246

TEXT:

Motorola shines Sun on project

HARVARD - **Motorola** Inc.'s Internet and Networking Group said Tuesday it plans to pair Sun's Jini technology with a newly developed **Motorola** networking software research and development project, code-named **Piano**. The **Piano** project's goal is to make **electronic** devices aware of other nearby **electronic** devices and be capable of **wirelessly** networking with them. When **Piano**-enabled devices get near each other, they automatically detect each other's presence and then...

...to decide if further communication between the devices is warranted. If it is, a temporary **wireless** network, or "just-in-time" intranet, is set up so either device can use the...

...a Sun R&D project that expands the power of Sun's Java technology. Separately, **Motorola** announced its Automotive, Component, Computer and Energy Sector is realigning its overall strategy and organization to take advantage of growing opportunities in the embedded **electronic** solutions market. The sector's name is changing to the Integrated **Electronic** Systems Sector. Other changes include actions to sharpen the sector's focus on the growing need for **electronic** systems solutions. Schaumburg-based **Motorola** has a plant in Harvard.

3/3,K/77 (Item 3 from file: 781)

DIALOG(R)File 781:ProQuest Newsstand

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04617310 DLHD235710 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Northwest Briefs

Chicago Daily Herald

Wednesday, January 27, 1999

DOCUMENT TYPE: Newspaper, Large LANGUAGE: ENGLISH RECORD TYPE:
FULLTEXT

Word Count: 236

(USE FORMAT 7 OR 9 FOR FULLTEXT)

Motorola shines Sun on project

SCHAUMBURG - **Motorola** Inc.'s Internet and Networking Group said Tuesday it plans to pair Sun's Jini technology with a newly developed **Motorola** networking software research and development project, code-named **Piano**. **Piano**'s goal is to make most **electronic** devices aware of other nearby **electronic** devices and be capable of **wirelessly** networking with them via a temporary intranet. **Motorola** also announced its Northbrook-based Automotive, Component, Computer and Energy Sector is realigning its overall strategy to take advantage of the growing embedded **electronic** solutions market. The sector's name is changing to the Integrated **Electronic** Systems Sector. **Motorola** is based in Schaumburg.

Zurich forms commercial group

SCHAUMBURG - Zurich Financial Services Group of Schaumburg...

3/3,K/78 (Item 1 from file: 990)

DIALOG(R)File 990:NewsRoom Current Aug

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0708032189 16A80ZFW

8-K: TELENETICS CORP

EDGAR Forms

Monday, September 29, 2003

JOURNAL CODE: BDFA LANGUAGE: English RECORD TYPE: Fulltext

DOCUMENT TYPE: Newswire

WORD COUNT: 29,904

...STARPOINT (**WIRELESS** ...EN100108 Docking Station for **Wireless**
StarPoint Modules...GDI-1008 (1) HP 8920B RF/ **Cellular** Test Set...
GDI-1008 (1) HP 8920B RF/ **Cellular** Test Set...69.30 Lost: Test
fixture for **cellular** projects... **CELLULAR** TEST SET...6 Needham's
Electronics EMP-21 324135 Needham's **Electronics**

...

...5 ANDO **Electronics** AE-5120 84283578

3/3,K/79 (Item 2 from file: 990)

DIALOG(R)File 990:NewsRoom Current Aug

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0694072599 169E26WQ

Active membership roster. (SAADY-SEWELL)

Florida Bar Journal, v77, n8, p451(20)

Monday, September 1, 2003

JOURNAL CODE: AUTY LANGUAGE: English RECORD TYPE: Fulltext

DOCUMENT TYPE: Trade Journal ISSN: 0015-3915

WORD COUNT: 57,281

3/3,K/80 (Item 1 from file: 992)

DIALOG(R)File 992:NEWSROOM CURRENT

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0646544721 166F1CPJ

Strings, brass and skin.

Fazli Ibrahim

New Straits Times, p04

Sunday, June 1, 2003

JOURNAL CODE: ADFG LANGUAGE: English RECORD TYPE: Fulltext

DOCUMENT TYPE: Newspaper

WORD COUNT: 2,034

...for the mass market. But listen carefully, and you will hear classical music everywhere. The **electronic** tones of Fur Elise on a Nokia, Ride of the Valkyries on a **Motorola**, and Flight of the Bumble Bee on a Samsung. And it's not just pealing...just plain old middle-class aspirations and ostentation. "My son is taking his Grade 7 **piano** exams next week," a delicate boast. "My daughter is going to become a music teacher..."

...how many exactly, but here's an indication - ABRSM reported in 1999 that 1,012 **piano** teachers from Malaysia and Singapore attended its **piano** workshops. People at the Malaysian Philharmonic, such as Education and Outreach manager Soraya Mansor, have...

3/3,K/81 (Item 1 from file: 993)

DIALOG(R)File 993:NEWSROOM 2002

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0552061233 160J1VTJ

The random muse: authorship and indeterminacy. (copyright law)

Durham, Alan L.

William and Mary Law Review, v44, n2, p569(74)

Sunday, December 1, 2002

JOURNAL CODE: AVPU LANGUAGE: English RECORD TYPE: Fulltext

DOCUMENT TYPE: Trade Journal ISSN: 0043-5589

WORD COUNT: 32,949

3/3,K/82 (Item 2 from file: 993)

DIALOG(R)File 993:NEWSROOM 2002

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0505048608 15XL1HGZ

Active membership roster. (Scheffer, Janice Cogburn-Simons).

Florida Bar Journal, v76, n8, p439(20)

Sunday, September 1, 2002

JOURNAL CODE: AUTY LANGUAGE: English RECORD TYPE: Fulltext

DOCUMENT TYPE: Trade Journal ISSN: 0015-3915

Search Report from Ginger R. DeMille

WORD COUNT: 49,269

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561

3/3,K/83 (Item 1 from file: 994)

DIALOG(R)File 994:NewsRoom 2001

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0347571731 15MR261L

Manufacturers' directory. (A to Z). (Directory)

Motion Systems Distributor, v15, n6, p5(14)

Thursday, November 1, 2001

JOURNAL CODE: AQYF LANGUAGE: English RECORD TYPE: Fulltext

DOCUMENT TYPE: Magazine

WORD COUNT: 29,472

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Internet...0031

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Internet: www.saftronics.com

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Email: info@spadone-alfa.com

Internet: www.spadone-alpha.com

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FAX: 815-389-2582

Internet: www.warnarnet.com

Warner Electric/Seco **Electronics**

449 Gardner St.

South Beloit, IL 61080

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FAX: 815...

3/3,K/84 (Item 2 from file: 994)

DIALOG(R)File 994:NewsRoom 2001

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0196003107 15A80312

Calano le vendite di cellulari e i chip ristagnano pero i conti sono in linea con le stime degli analisti Motorola fa meno utili ma sale (+6%)

IL SOLE 24 ORE (ITALY)

Friday, January 12, 2001

JOURNAL CODE: ACUT LANGUAGE: ITALIAN RECORD TYPE: Fulltext

DOCUMENT TYPE: Newspaper ISSN: 0391-786X

WORD COUNT: 430

...del 14% a 37,6 miliardi di dollari.

L'aspetto piu deludente dei risultati della **Motorola** e stato tuttavia l'incapacita dell'azienda di portare avanti con successo un ambizioso **piano** di ristrutturazione volto ad abbassare i costi. I margini operativi nella divisione dei telefoni **cellulari** , quella dove si sarebbero dovuti verificare i maggiori progressi, sono saliti solo del 2% anziche...
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